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ABSTRACT

The teaching outline presents career education activities for grades K-6 structured into 10 subject areas (minicourses) with the rationale listed for each. The subject areas are: arts and crafts, culinary arts, hand sewing and clothing art, horticulture, lettering and layout, outdoor living education, personal banking, photography, practical home repairs, and woodworking. A philosophy of career education, definitions of terminology used in the outline, general rationale for the minicourses, and 12 basic goals for career education are included. The role of the counselor, considered the dominant factor in the program, is described. Each subject area section has a list of activity titles with brief descriptions, grade level designations, and student cost. For each activity a behavioral objective, an equipment list, a detailed outline of the procedure, and a list of instructional materials or sources of information are provided. The guide also contains evaluative instruments for instructors, students, curriculum writers, and parents to use in assessing the program. (MS)

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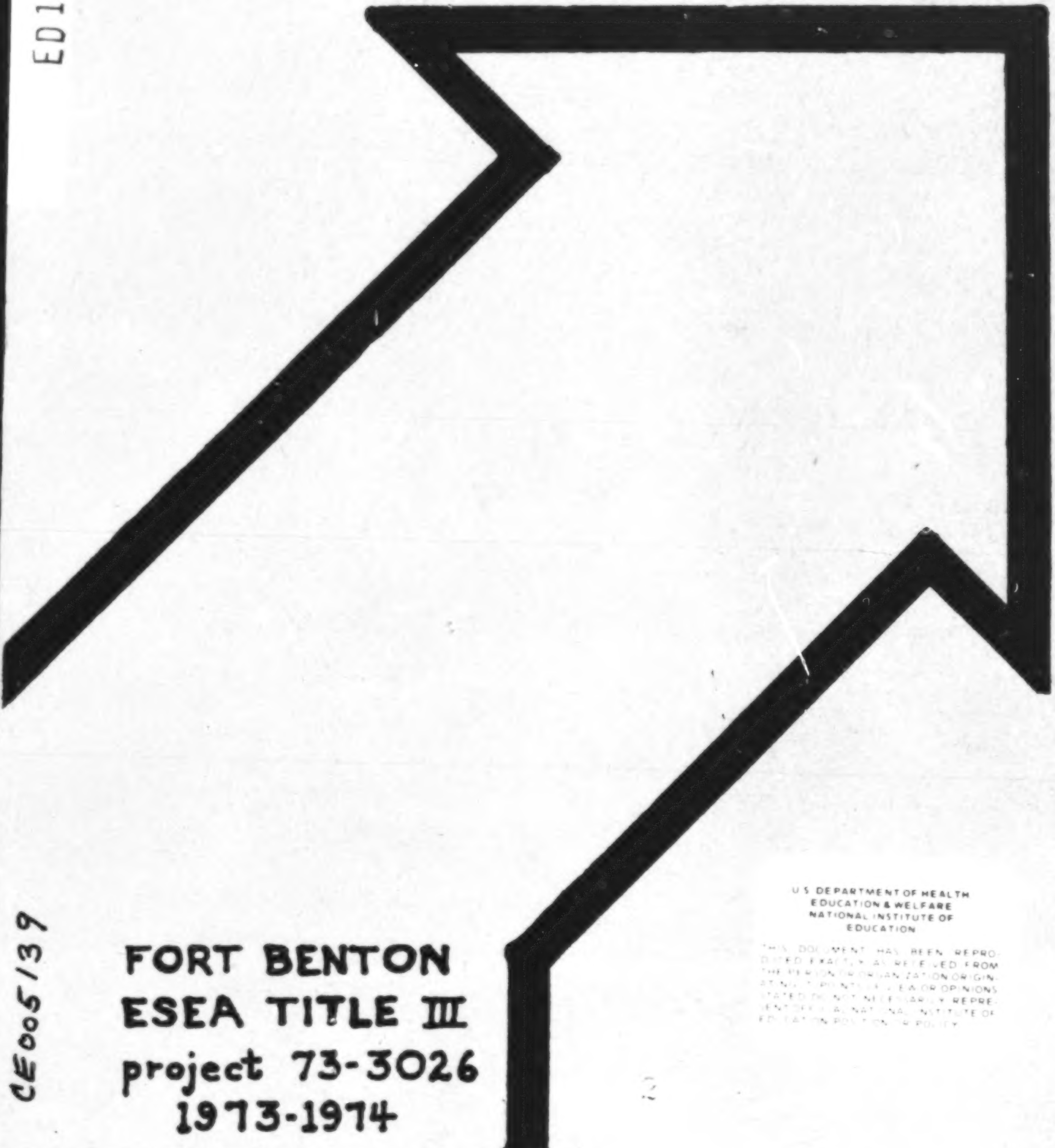
preparation & counseling for the world of work



FORT BENTON
ESEA TITLE III
project 73-3026
1973-1974

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PREFACE

The covers of this booklet hold one rural area school district's attempt at developing attitude, appreciation and worth of all types of work in the world today.

This project, funded under ESEA Title III, is a culmination of many people's interest and planning over a period of the last three years. Attempts have been made at all times to involve as many people from the community, from our student body, and from the teaching staff in every phase of the project as possible. Any success that has been or will be experienced to this point and beyond is due to their cooperation, and for this we all wish to thank them.

The first steps of career education are contained within this document and, with continued hard work on the part of all concerned, we anticipate that this can be useable for other school systems within Montana as well as outside its borders.

Members of this project staff will be available in part or whole to those wishing consultant services.

W. J. Hoppes
Superintendent of Schools

INTRODUCTION

The curricula and activity plans for the mini-course segment of the experiment "Preparation and Counseling for the World of Work" were developed primarily for the Fort Benton School System. The experiment was funded through an ESEA Title III grant to the Fort Benton Public Schools.

The development of the activities included in this outline is the result of a concentrated two-week effort by school personnel, citizens and students. The mini-course development personnel were:

W. J. Hoppes	Superintendent of Fort Benton Schools
Ray Grande	Project Director
Patrick Flanagan	Elementary Vocational Guidance Counselor
John Jones	Photography - Writer
Peggy Lattin	Lettering and Layout - Writer
John Lepley	Horticulture - Writer
Ron Shoquist	Personal Banking - Writer
Gail Stensland	Outdoor Living Education - Writer
Gail Stensland	Practical Home Repair - Writer
Pam Woldtvedt	Culinary Arts - Writer
Pam Woldtvedt	Hand Sewing - Writer
James Wolf	Arts and Crafts - Writer
James Wolf	Wood Work - Writer
Hazel Dunnwebber	Elementary Staff - Consultant
Inez Smith	Elementary Staff - Consultant
Ruth Carlstrom	Citizen - Consultant
Mary Jane Larson	Citizen - Consultant
Rodney Axtman	Student - Consultant
Kathy Booth	Student - Consultant
Dr. Lee Spuhler	Project External Evaluator

PHILOSOPHY

It is the philosophy of the Fort Benton School that each child, kindergarten through the 12th grade, shall have the opportunity to explore and develop social, emotional and vocational interests. It is the responsibility of the community to provide for such experiences. Therefore, the school, being the educational agent of the community, shall provide each child with the opportunity to explore his personal feelings with peers or an adult counselor within a sympathetic and non-critical environment; and the child shall be given relevant educational and occupational information, and shall be helped to understand his own abilities and limitations that he may be better able to build a life style compatible to his individual needs.

TERMINOLOGY

The definitions listed below are intended for the specific use in this outline.

1. ACTIVITY - one lesson of a mini-course.
2. APPRECIATION - showing a positive attitude towards but not making a definite choice.
3. BEHAVIORAL INSTRUCTIONAL OBJECTIVE - refers to those objectives used to measure the terminal behavior of the student.
4. CONCEPT - mini-course title.
5. COUNSELOR - the elementary occupational guidance counselor of the Fort Benton School System.
6. EXPERIMENT - refers to ESEA Title III Project 71-1026, Preparation and Counseling for the World of Work.
7. GOALS - refers to those twelve basic goals established by this committee as the over-all concern of this experiment.
8. HOME-ROOM TEACHER - the individual who has the daily responsiblity for the group of students involved in a mini-course.
9. INSTRUCTOR - the individual who assumes the responsibility for directing the student activities in each mini-course.
10. MINI-COURSE - one unit implemented at one grade level for a two-day time block. To include orientation, project activities, follow-up and evaluation.
11. OCCUPATION - refers to all types of work including professional, technical, skilled and unskilled.
12. PROJECT - a tangible article completed by the student for him to use or retain; or a task the student has learned to perform.
13. SELF-AWARENESS - self values, interests and relevance to his occupation.
14. WRITER - Fort Benton Staff member who developed the activities for each mini-course.

GENERAL RATIONALE FOR MINI-COURSES

Elementary school guidance and counseling is a relatively new field in America's educational system, and the writers of this project believe that any new educational program must have some realistic basis for its existance. It is further believed that any new program should be designed so that its accountability can be measured with some degree of validity.

It is the intent of the writers of the "Preparation and Counseling for the World of Work" Project to offer the proponents of elementary guidance and counseling a realistic guidance tool to implement a program that will (1) assist elementary children in developing an understanding about themselves, their values, and an appreciation for all types of work in the world in which they live; (2) develop the affective, psychomotive, as well as the cognitive growth of the individual through the mini-courses; (3) provide the student with a satisfaction of needs which will be necessary eventually for a realistic occupational choice. It is important that the student develop an awareness and understanding of all types of occupations. This is a process that starts early in life and continues throughout his education and should not be considered as a single decision-making moment in life.

The mini-courses will aid the student in developing a realistic concept in his evaluation of occupations through the tasks that he will complete in the program. He will learn that one's work will determine one's life-style. This will show the student that human adjustment takes place when his work task is congruent with his self-concept.

BASIC GOALS

This project group identified twelve basic goals in the field of career education. These goals are stated as follows:

1. Develop an appreciation for the world of work.
2. Develop an understanding of the individual through self-awareness.
3. Develop an ability to explore and expand the individual's interaction within the scope of family, peers and society.
4. Develop an emotional and aesthetic maturity through the exposure to world of work mini-courses.
5. Develop self-confidence, sense of belonging, personality and character.
6. Develop a positive attitude through guidance towards all aspects of the world of work.
7. Develop a knowledge of how different jobs affect individual and living patterns of families.
8. Develop an understanding for the relationship of interests and abilities involved in different occupations.
9. Develop an appreciation for the task-oriented approach.
10. Develop an appreciation for natural environment and its effect upon the world of work.
11. Develop a knowledge of the interdependency of consumer attitudes upon the world of work.
12. Develop an aptitude for making wise use of leisure time.

CONCEPTS AND THEIR RATIONALE

The committee selected a series of ten concepts (mini-courses) and identified their rationale as listed below.

Concept	Rationale
Arts and Crafts K-6	Man was created with a unique pair of hands which allowed him to do and build many things. However, recently machines have mass produced most articles, and hand work has become unpopular. In the teaching of arts and crafts we intend to keep the projects simple and interesting so that each child will gain the self-satisfaction of having created a personal product. This accomplishment will help develop the student's attitude that work with the hands is considered an honorable occupation.
Culinary Arts K-6	All students, at sometime, will be faced with the task of preparing food. With the "housewife" moving rapidly into the working world, the expansion of recreational and outdoor living, and the availability of commercially prepared mixes, men are also becoming more involved in food preparation. All students will learn not only how to prepare food, but proper methods of cleaning and storage.
Hand Sewing and Clothing Art 6	Creativity is one of man's most satisfying accomplishments. The school plays a great part in developing a person's potentials along these lines. A child that is taught to do beginning hand stitching will be able to make something he can use immediately. To some, it will open an entire field of different possibilityies; to others it will be no more than another acquired skill. Today fashion design and related fields are becoming a much broader area involving more trained personnel than ever. This is a good age to introduce this project as the

	child has developed the necessary motor skills to construct a useable article.
Horticulture K-6	At the elementary age the indifidual has a natural curiosity about life and growing things. This curiosity can be satisfied through the growing of some kinds of plants--either for food or for outside. It is important that each student become aware of his surrounding environment and relate the interdependency of living things to each other. Through this awareness, each student will learn to realize the need not only to conserve our natural environment and resources, but to improve them.
Lettering and Layout 4	Manuscript writing is usually taught in the first grade, and after that it often falls into disuse and nearly forgotten. It should be a continuing skill and art because of its wide application in the work-a-day world as is substantiated in the accompanying occupational related list. It can be put to immediate use in the intermediate grades by the children who become interested in making posters for county fairs, Conservation Week, announcements, and many other events.
Outdoor Living Education 6	In a few more years, because of our advancement in technology, our society may be enjoying a four-day work week. What shall we do with "Our Three Days"? The outdoors is rapidly becoming the most popular choice for use of leisure time. Wise use of our national resources is essential. Also, occupations related to recreation are rapidly expanding. This project will begin to stimulate student awareness and appreciation.
Personal Banking 5-6	Most children today have allowances either earned or given to them by their parents. At an early age they learn that a certain amount of money buys certain desired articles. When the child earns enough that a deposit in a bank becomes necessary, his knowledge immediately is expanded, and he is introduced to the world of business. At this time, the

	student should have some knowledge budgets and banking.
Photography 5-6	As man's activities expand, so doe his desire to record events, happe ings, and articles. Students will learn the processes involved from of the camera to "finished" photog Also, the student will be taught h to utilize photography for inquiry learning situations.
Practical Home Repairs 5-6	Skills acquired through this unit be applied immediately in any home. The student will learn tool care, and maintenance. He will practice ing minor repairs, as well as cons several projects. Boys and girls benefit equally from this unit.
Woodworking 2-3	The student receives a great amoun self-satisfaction in building a pr using his creative and imaginative abilities. Woodworking can motiva many individuals towards developin interesting vocation or hobby. Of this unit in the Elementary School help prepare the student for requi industrial arts at the Junior High

ROLE OF THE COUNSELOR

Throughout all phases of the "Preparation and Counseling for the World of Work" undertakings, the outward appearance indicated a strong emphasis on the mini-course portion. This is not the intent. It is merely a reflection of the amount of advance preparation necessary in preparing for and implementing these projects at each grade level.

The role of the counselor is intended to be the dominant factor in this program. The basic objective of all concerned is to develop in the students of the Fort Benton Schools an awareness of and appreciation for all types of occupations.

After a 1970 survey of the vocational offerings of the Fort Benton Schools, the following conclusions became evident:

1. The Elementary School (K-6) had no curriculum in Career Education.
2. The Elementary School had no guidance program.
3. The vocational offerings at the Junior-Senior High School were expanding horizontally. However, there was little vertical continuity.
4. There was a growing demand from students for more occupational information.

These findings indicated the need for an occupational guidance counselor to:

1. Coordinate the entire vocational curriculum K-12.
2. Implement an elementary guidance program.
3. Implement the beginning of a career education curriculum for grades K-6. The mini-courses will be the first experiment. Listed are some of the responsibilities of the counselor:

a. To provide the student with opportunities to help plan, carry out, and evaluate his experience so that he may learn to better understand himself, his abilities and limitations.

b. Assist teachers to guide student activities to further growth and experiences. Assist students to guide themselves toward future goals.

c. Serve as a resource person with expertise in the world of work.

d. Serve as a personal counselor to those students seeking (or referred for) this type of service.

e. Provide job placement service for those who qualify for certain areas.

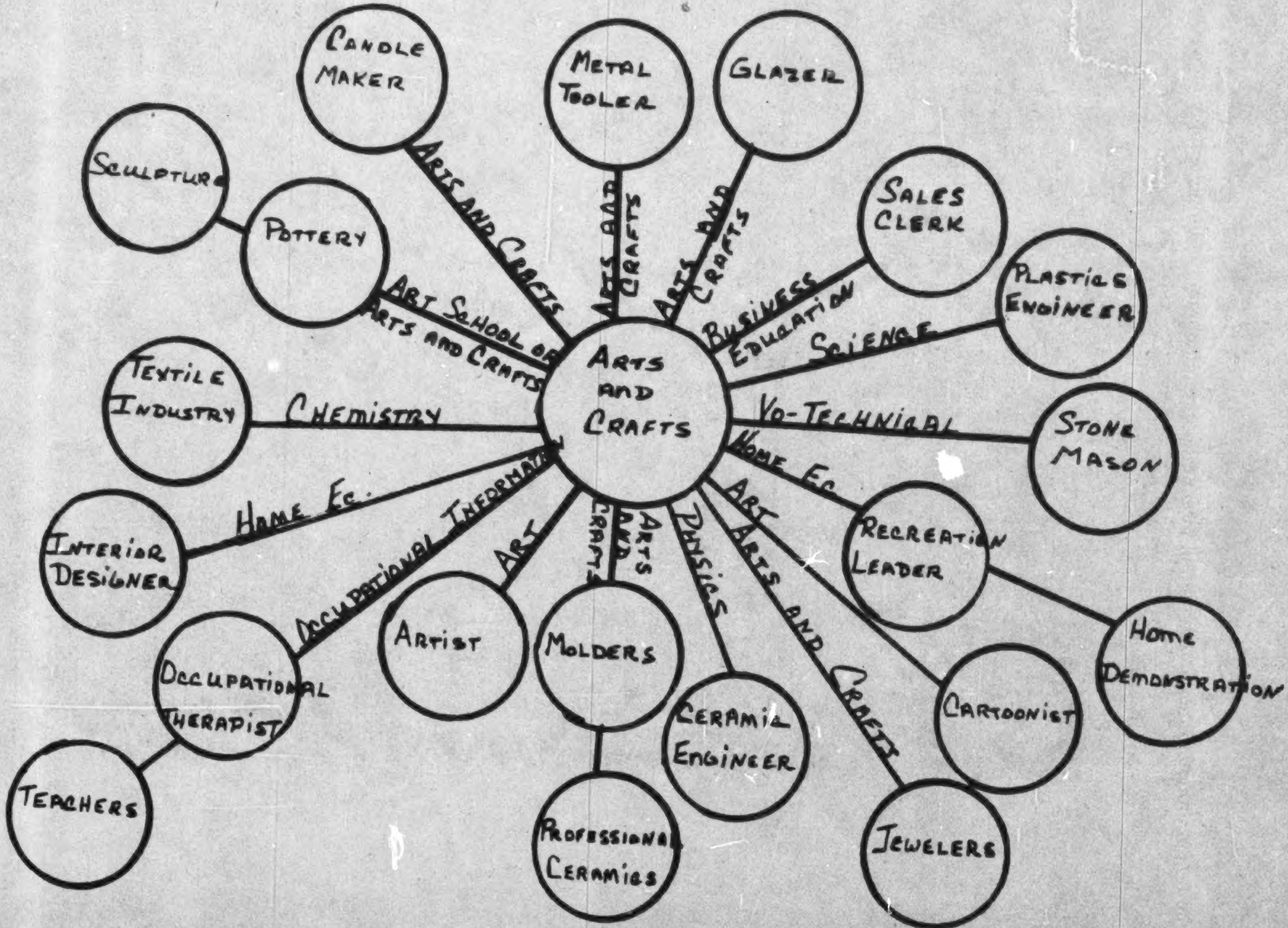
f. Assist teachers and parents to assess their present attitudes toward career evolvement and to establish, as necessary, the meaning and significance of vocational development.

g. Encourage and assist teachers to develop learning experiences that will provide experimental exposures to vocational behavior of a real and simulated nature (mini-courses).

h. Counsel with groups of children and parents with reference to social changes and the uncertainties and frustrations these changes may exert on vocational development.

i. Utilize community resources and personnel in activities of his environment both as it exists and as it will be presumed to exist.

j. Conduct parent study group discussions on aspects of vocational development to help dispell old stereotypes of vocational "choice" and to help parents understand better the process aspects of vocational development in a changing society.



Arts and Crafts—related curriculum areas and occupations.

ARTS AND CRAFTS

Activity No.	Title	Activity
1-A	Pinch Pot	Pinching a ball of clay to form a pot
2-A	Coil Pot	Making a pot by fusing coils together
3-A	One-Piece Drain Mold	Making a bowl by slip pouring
4-A	Glazing	Brushing glaze on bisque fired pots
1-B	Ceramics	Making pinch and coil pots
2-B	Slab Pottery	Rolling, cutting and constructing slab pottery
3-B	Lids and Handles	Making lids and handles for pinch, coil, and slab pots.
4-B	Two-Piece Drain Mold	Pouring slip
5-B	Glazing	Applying glazes
1-C	Stain Glass Bottles	Leading the design
2-C	Staining	Painting the glass
1-D	Tying Knots and Making Folds	Folding and tying knots on fabrics
2-D	Dyeing	Placing tied fabric in dye bath
3-D	Let's Tie and Dye a T-Shirt	Each student chooses one of the previous methods and tie-dyes a t-shirt
4-D	Silk Screen Printing	Pulling a squeegee over a stencil
1-E	Metal Tooling	Choose a pattern and transfer it to the metal
2-E	Tooling the Metal	Raising the metal with modeling tools
3-E	Mounting and Finishing	Filling back, mounting, buffing, and finishing

1-F	Sand Candle	Making candles in sand
2-F	Multi-Color Breakaway Glass Mold Candle	Making multi-colored candles in glass bottles
3-F	Ice Candles	Making candles with holes on outer surface
4-F	Two-Piece Candle Mold	Making irregular-shaped candles in two-piece molds
1-G	Leatherwork	Measuring and cutting belt to length
2-G	Buckles & Snap Fasteners	Punching and installing snap fasteners and buckles
3-G	Creating Your Design	Trying several designs on sample pieces of leather and choosing one design for your belt.
4-G	Finishing Your Belt	Cleaning, applying dye and finishing belts
5-G	Other Leather Projects	Tooling small quick projects

Activity No.	Cost/Student	Grade
1-A	.15	K
2-A	.15	K
3-A	.25	K
4-A	.80	K
1-B	.15	1
2-B	.15	1
3-B	.10	1
4-B	.25	1
5-B	.80	1
1-C	.75	2
2-C	.00	2
1-D	.15	3
2-D	.60	3
3-D	.90	3
4-D	.10	3
1-E	.50	4
2-E	.25	4
3-E	.30	4
1-F	.50	5
2-F	.50	5
3-F	.50	5
4-F	.50	5
1-G	1.00	6
2-G	.50	6
3-G	.25	6
4-G	.10	6
5-G	.25	6

INTRODUCTION

The student should be able to recognize clay and know what happens when clay is fired.

Clay is basically a form of mud formed by nature through weathering (freezing, thawing, erosion) which breaks rocks into extremely fine particles. Clay in its pure form is called kaolin. When clay is mixed with impurities, both organic and metallic, it takes on color of various shades in red, brown, and gray.

Clay is classified into three groups according to density and firing:

Temperature:	Firing temperature
Earthenware	1800-2100 degrees F
Stoneware	2100-2300 degrees F
Porcelain	2200-2500 degrees F

When clay is fired, it undergoes certain changes; it becomes very hard and changes color.

After firing, the clay is glazed and fired again to make it non-porous or to add color and design.

The first firing is called bisque. Raw dry clay articles are called greenware.

PINCH POT

ACTIVITY 1-A

Here's Why:

The student will be able to form a pot from a ball of clay by the pinching method.

Here's What You'll Need:

1. local or commercial water base clay (earthenware)
2. plaster of paris bats, approximately 6" diameter
3. keys, paper clips, pencils, hairpins, other small hard objects

***Here's How To Do It:**

1. Knead the clay. Clay is ready to form if it holds its own shape and if it does not crack when squeezed.
    a. If clay does not hold its own shape and sags, it is too wet. Knead it more, or place it on a plaster bat and knead it again.
    b. If clay cracks when squeezed, it is too dry. Knead in a few crops of water.
2. Roll a ball of clay between the palms of the hands to form a sphere approximately 2" in diameter.
3. While holding the sphere above and in both hands, press the thumbs gently into the center of the sphere rotating the clay until the ball is hollowed and the walls are of unofirm thickness (about 1/4" to 3/8").
4. If cracks appear, the clay is too dry or pressed into shape too rapidly or forcefully. Repair cracks to speed up the repair.
5. If the pot is built correctly, it will not have any flat areas and will be round, oblong, or any other rounded shapes.
6. The bottom can be flattened by placing the pot on a plaster bat and carefully applying pressure to the inside of the pot. Remember: Keep the pot as smooth and round-shaped as possible on both the inside and outside. The bottom should be flat on the inside and outside.
7. Decorate the outside of the pot by pressing gently an object or objects (key, hairpin, etc.) into the clay to create a simple and interesting pattern. Support the inside of the pot with fingers of the other hand (Diagram 1).
8. Take pot off plaster bat carefully and place on shelf. Let dry slowly at room temperature.
9. Firing will be done by the instructor when clay is completely dry.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 10 students.

Don't:

1. Apply too much pressure when decorating. (Sides will become too thin.)
2. Handle greenware. Only the instructor may handle the greenware.

Here's Where You Might Find More Information:

1. Brennan, Thomas J., Ceramics, The Goodheart-Willcox Co. Inc., Homewood, Illinois, 1964, p. 96.
2. Wankelman, Willard, Wigg, Philip & Marietta, A Handbook of Arts and Crafts for Elementary and Junior High School Teachers, William C. Brown Company Publishers, 135 South Locust Street, Dubuque, Iowa.

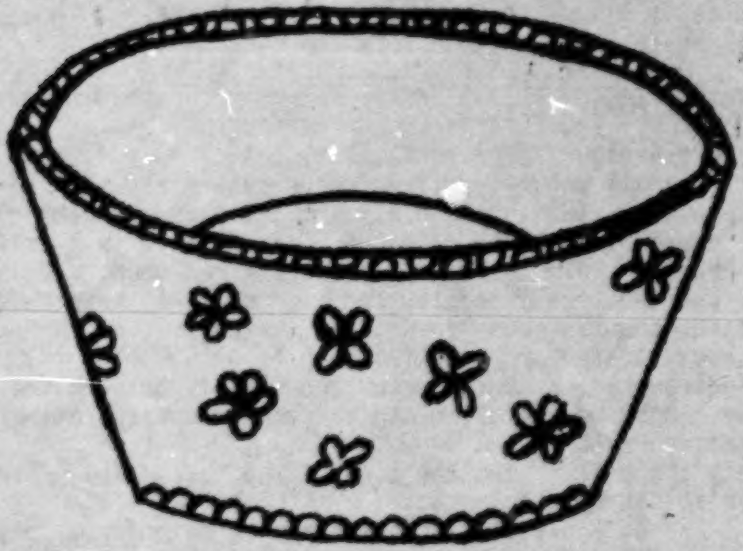


DIAGRAM 1

COIL POT

ACTIVITY 2-A

Here's Why:

The student will be able to roll coils out of clay and press them together to form a pot.

Here's What You'll Need:

1. local or commercial water base clay (earthenware)
2. plaster of paris bats, approximately 6" diameter
3. modeling tool
4. canvas or oil cloth approximately 1' square
5. dull knife

***Here's How To Do It:**

1. Knead the clay (refer to Activity 1-A).
2. With a small amount of clay form a sphere about 1" to 1 1/2" diameter, then flatten the ball onto the canvas or the cloth side of oil cloth with the heel of the hand until it is a uniform 1/4" in thickness. Trim the edges to the desired shape with a dull knife. The shape may be irregular curves, ovals; no sharp edges are permitted, such as those in squares, triangles, etc. Place the clay base on plaster of paris (Diagram 1).
3. Select a small amount of clay and roll it between the palms of your hands and the oil cloth to form a rope approximately 3/8" diameter and 6" long.
4. Place the coil around the edge of the bottom and press it down so that it adheres to the base.
   a. The coil may overlap the starting point or it may be too short, depending on the length of the coil. The coils should produce an irregular pattern on the horizontal (Diagram 2).
   b. Continue making and pressing coils to previous coils until the pot stands about 2" to 3" high.
   c. Level off the top by adding short coils to low sides, so that the sides are all the same height.
   d. Smooth out any ridges with the fingers to the walls are even.
5. With a modeling tool, tie the coils together by pressing between the coils. Support the inside of the pots with the fingers of the other hand (Diagram 3).
6. Take pot off plaster bat and place on shelf. Let dry slowly at room temperature. Advanced Student: While tying the outside coils together, smooth out the inside of the pot so that the coils cannot be recognized.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 10 students.

7. Firing will be done by the instructor when clay is completely dry.

Don't:

Same as 1-A

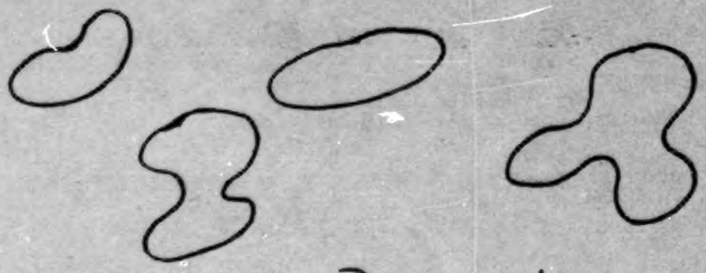
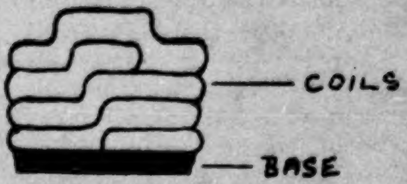
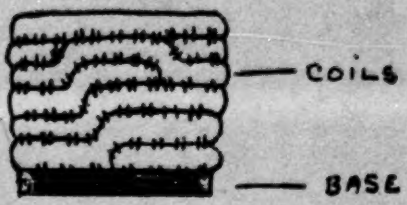


DIAGRAM 1



FRONT VIEW DIAGRAM 2



FRONT VIEW DIAGRAM 3

ONE PIECE DRAIN MOLD

ACTIVITY 3-A

Here's Why:

The student will be able to make a simple object in a one-piece drain mold.

Here's What You'll Need:

1. slip - local or commercial water base (earthenware)
2. drain mold
3. dull knife
4. sponge
5. large metal bowl at least 6"
6. plaster bat approximately 6"

***Here's How To Do It:**

1. Pour slip into the mold until it is full.
2. Add more slip to maintain a full mold.
    a. Plaster absorbs water from slip and the water recedes.
    b. As the water is absorbed, a heavy deposit of clay is formed on the sides and bottom of the mold.
3. When the desired thickness is reached (about 1/8" to 1/4") pour the excess slip into the large metal bowl.
    a. The amount of time the slip should remain in the mold before draining varies. A Dry mold builds up a thick wall in a short time. A damp mold may take several hours.
    b. Tip the mold to one side slightly. This will give you some indication of the wall thickness.
4. Tip the mold upside down and prop up one end with a stick. Leave the mold upside down until the clay starts to harden.
5. When the shine leaves the clay, turn the mold upright.
    a. Scrape the excess clay from the top of the mold with the dull knife.
6. Remove the casting from the mold when the clay shrinks away from the mold.
    a. Place a plaster bat on top of the mold and turn the mold upside down.
    b. Store the casting until it is leather hard.
7. Finish the casting by scraping the rough edges lightly with a knife and buffing with a sponge.
8. Carefully put on shelf to dry.
9. Firing will be done by the instructor when clay is completely dry.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 10 students.

Don't:

1. Handle greenware. Only the instructor may handle the greenware.
2. Pour out excess clip without instructor's approval.
3. Pour slip into an excessively damp mold.
4. Lift casting from mold.

Here's Where You Might Find More Information:

1. Brennan, Thomas J., Ceramics.

GLAZING

ACTIVITY 4-A

Here's Why:

The student will be able to apply glazes to his bisque fired pots.

Here's What You'll Need:

1. glaze (various colors)
2. brushes
3. dull knife
4. bisque pots

*Here's How To Do It:

1. Wipe the pot with a damp sponge.
2. Dip the brush (soft, flat, 1/2" to 1") in the glaze and paint on the glaze. (Follow manufacturer's instructions on glaze bottles.)
3. Glaze outside of all pots first.
   a. Let pots dry for 10-15 minutes.
   b. Do insides of pots.
   c. When dry, scrape off all glaze from the bottom outside of each pot.
4. You are now ready for firing. Instructor will do all stacking and firing of pots. Students will unstack when kiln is cool under instructor's supervision.

Don't:

1. Apply glaze over 1/8" thick.

Here's Where You'll Find More Information:

Same as 3-A

---

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 10 students.

CERAMICS

ACTIVITY 1-B

Here's Why:

The student will be able to build and construct pinch and coil pot
to a greater degree of perfection.

Here's What You'll Need:

1. Same as 1-A and 2-A.

***Here's How To Do It:**

1. Same as 1-A and 2-A.
2. Make pinch and coil pots larger by the addition of more clay.

---

*We suggest a qualified instructor teach this activity. Also, use one
ienced student aide for each group of 10 students.

SLAB POTTERY

ACTIVITY 2-B

Here's Why:

The student will be able to roll clay into slabs and construct pottery from them.

Here's What You'll Need:

1. same as 3-B
2. stiff paper for patterns
3. pencil
4. simple patterns (leaves, etc.)
5. scissors
6. newspaper
7. rolling pin

***Here's How to Do It:**

1. Draw your pattern on stiff paper and cut it out with scissors.
2. Wedge the clay.
3. Roll the clay to form a slab.
    a. A rolling pin or a large diameter dowel can be used to flatten the clay.
    b. The strips of wood at the right and left of the clay serve as a thickness gauge. In making slabs it is well to have a number of pairs of wood strips of varying thicknesses. You may select the thickness best suited for your project.
4. Roll the slab on canvas or oil cloth (cloth side up).
5. Place the paper template on the slab and cut around it with a knife.
6. Remove the excess clay from the pattern.
7. Place the clay pattern on a plaster of paris bat and begin to form your pottery.
    a. Newspaper or small balls of clay can be used to raise or support any edges.
    b. Attach any other pieces and buff with a damp spongs.
8. Put on shelf and let dry slowly at room temperature.

Instructional Materials:

1. Plans for a leaf dish, angle candle holder box and a pitcher are in Ceramics by Thomas J. Brennan, pp. 31-41.

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*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 10 students.

LIDS AND HANDLES

ACTIVITY 3-B

Here's Why:

The student will be able to properly construct lids and handles for his pinch, coil or slab pots.

Here's What You'll Need:

1. same as 1-A and 2-A
2. rolling pin
3. pairs of wood strips of various thickness (1/4", 3/8", 1/2")
4. newspaper

***Here's How To Do It:**

1. Lids will be made by the pinch method (see activity 1-A).
    a. Pinch a shallow bowl until it measures 1/2" to 3/4" larger than the diameter of your pot.
    b. Roll a small ball of clay about 1/2" to 3/4" in diameter.
    c. Attach the ball to the shallow bowl. This serves as a knob.
    d. Roll a coil and connect the ends so that it just fits in the opening of your pot.
    e. Attach the coil to the inside of the shallow lid. This forms a lip, thus securing the lid on the pot.
    f. Try it on for size.
2. Handles will be made by the slab method (see activity 2-B).

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 10 students.

TWO-PIECE DRAIN MOLD

ACTIVITY 4-B

Here's Why:

The student will be able to make pottery from a two-piece drain mold.

Here's What You'll Need:

1. same as 3-A
2. two-piece drain mold
3. 1/2" wide rubber bands cut from automobile tire tubes

*Here's How To Do It:

1. Casting in a two-piece mold is similar to casting in a one-piece mold except that the two halves must be held together during the pouring. One inch wide rubber bands cut from automobile tire tubes will serve this function.
2. Review 3-A.

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*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 10 students.

GLAZING

ACTIVITY 5-B

Use the same procedures as Activity 4-A.

STAIN GLASS BOTTLES

ACTIVITY 1-C

Here's Why:

The student will be able to correctly apply lead tape to a design on a bottle.

Here's What You'll Need:

1. clear, smooth-surfaced, empty glass containers from bath salts, wine, liquor, salad dressing, ketchup, peanut butter, etc.
2. glass stain
3. lead tape 1" wide (peels to 1/8" or 1/4" width)
4. contact adhesive
5. various brushes 1/4" to 1"
6. felt tip pen
7. rubbing alcohol
8. rags
9. scissors
10. adhesive thinner
11. single edge razor blade
12. toothpicks

Here's How To Do It:

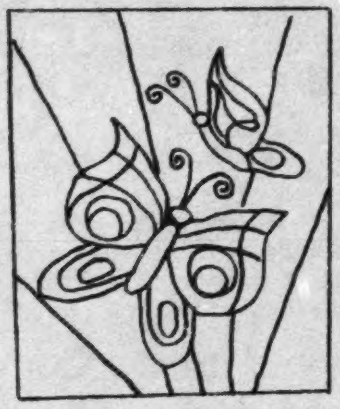
1. Clean glass surface with rubbing alcohol.
2. Draw a lead design on your bottle with a felt tip pen (Diagram 1).
3. Cut lead tape into a strip approximately 15" long. Straighten out on a hard surface.
   a. Brush a thin coat of adhesive along the entire lead surface and permit to dry thoroughly (approximately 10-15 minutes). Adhesive-coated lead can be stored two to three weeks if kept clean and dry.
4. Stripping and applying lead.
   a. Peel strips of lead as needed to cover the outlines of the sketch.
   b. Combine both sizes as required (1/8" and 1/4").
   c. Cut lead to fit as closely and tightly as possible in joints.
   d. Press adhesive-coated side of lead firmly onto the glass. (Complete contact will prevent edges from bleeding and running into each other.)
   e. When following curves, place starting end in position, press down and hold. With other end. shape and press lead to conform to design. Keep advancing your fingers along the lead strip as you work. Use a roller or pencil for additional pressure. Small circles and curves can be formed of uncoated lead and adhesive applied after the shape is finished.

NOTE: If lead will not adhere securely, the glass may be dirty, moist or fingerprinted and should be cleaned again. Excessive adhesive can be removed with thinner.

Instructional Materials:

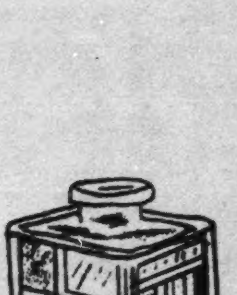
1. Glass Stain Projects, A New World of Color, Stain Glass Products, Cleveland 22, Ohio, 1966, pp. 17.

NOTE: Sample diagrams are on file in counselor's office. Copies are available. Attached is an example.



BUTTERFLIES

DIAGRAM 1



STAINING

ACTIVITY 2-C

Here's Why:

The student will be able to correctly apply stain to the glass.

Here's What You'll Need:

Same as 1-C

Here's How To Do It:

All lead should be applied.

1. Keep the work level so that paint will flow on the glass evenly.
    a. Flow paint on liberally helping the spreading action with the application brush.
    b. The more paint used, the deeper the color.
    c. Clean your brush thoroughly with thinner before using it for the next color.
    NOTE: If color bleeds into an adjoining leaded area, permit it to dry. Scrape away this seepage before painting the area.
    d. A toothpick or sharpened end of the brush helps spread paint into small corner areas and along edges. A cotton swab is also useful.
    e. Use as many different colors as desired.
2. Cleaning the applied lead.
    a. Paint that accidentally gets on the lead can be wiped off immediately. If it should dry, paint can be cleaned off with thinner or removed by scraping it off with a razor blade.
    NOTE: Bottles with pressed designs should not be leaded. Stain them only. Encourage using a smooth, clear glass surface first. If time permits, pressed glass may be stained.

Instructional Material:

Same as 1-C.

TYING KNOTS AND MAKING FOLDS

ACTIVITY 1-D

Here's Why:

The student will be able to properly form all the various folds and tie knots on the folds.

Here's What You'll Need:

1. fabrics - satin acetate, rayon, velveteens, velvets, silks, nylon, and all cotton, approximately 1 foot squares (five for each student)
2. cold water
3. string
4. scissors

***Here's How To Do It:**

1. Have each student do one of each of the five basic folds and tie them with string.
   a. Make all knots on wet fabrics.
   b. Knots should be snug.

Don't:

1. Tie-dye polyesters, acrylics, fiberglass and metallics. Dyes will not take.

Information:

Fashion Booklet, Box 307, Coventry, Connecticut
Free Tie-Dye Booklet 06238
Who Says Tie-Dyeing is Complicated?
If You Can Tie a Knot--You Can Tie-Dye
Rit Dye Company

Diagrams are on file in the counselor's office. Copies are available. Attached is an example.

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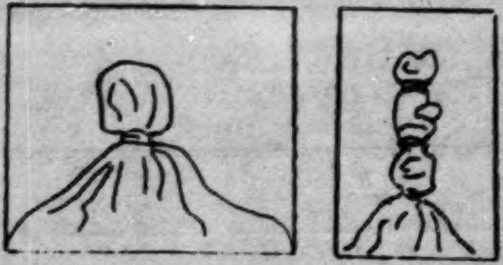
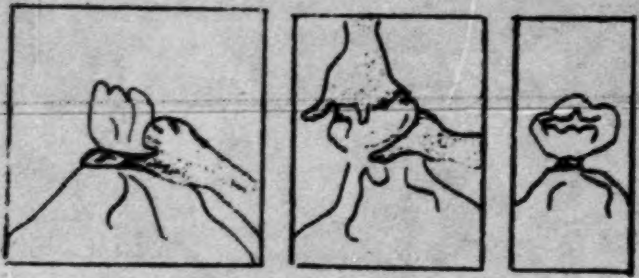
*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 6 students.

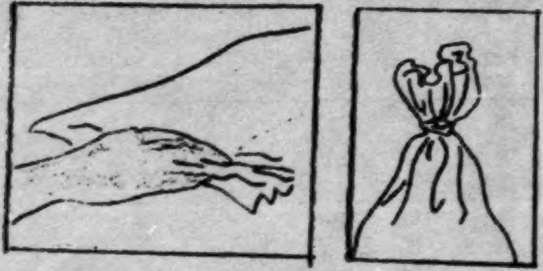
Basic knots and Folds



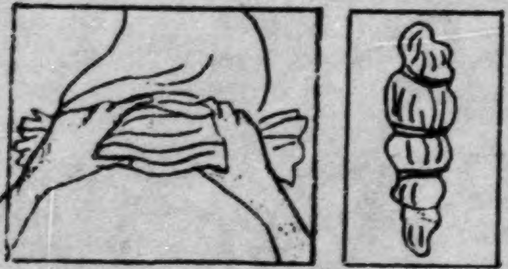
1. **The Rosette knot:** Pinch fabric up, secure with string for sunburst variation.



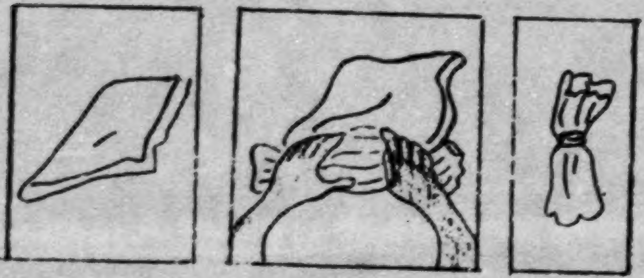
2. **The Donut knot:** Make a rosette knot then push the center inside, fastening tightly with string.



3. **Stripe:** Place straight. Gather between thumb and forefinger. Secure with string. Make additional stripes as desired.



4. **Gathering:** Start at edge and gather entire piece into both hands secure with string. The more ties the closer the stripes and visa versa.



5. **Two color effect:** Fold fabric lengthwise, gather through center and tie. Immerse one side, up to the tie, in one color. Rinse then while still tied put the opposite side in another color.

Activity 1D

DYEING

ACTIVITY 2-D

Here's Why:

The student will be able to properly dye all of the various folded fabrics he has tied.

Here's What You'll Need:

1. liquid or powder dye (various colors)
2. one large pan for each color (stainless steel or enamel pans)
3. plastic or rubber gloves
4. scissors
5. water - sink
6. hot plate
7. large spoon for mixing dyes
8. clothes line (or place to hang and dry)

***Here's How To Do It:**

1. Wear rubber gloves when dyeing fabrics.
2. Thoroughly wet the fabric.
3. Immerse in dye bath.
    a. Most dyes work faster if dye solution is simmering.
    b. Follow manufacturer's suggested instructions. Usually 1/2 hour simmering is adequate.
4. When desired shade is reached, squeeze excess dye from fabric.
5. Rinse in cold water.
6. Untie knots and folds and re-rinse.
7. While wet re-tie with the same fold or choose another for two-color effect.
    a. Repeat steps 3, 4, 5, 6.
    b. When dyeing in two or more baths, start with the lighter colors, and work towards the darker colors (Diagram 1).

Don't:

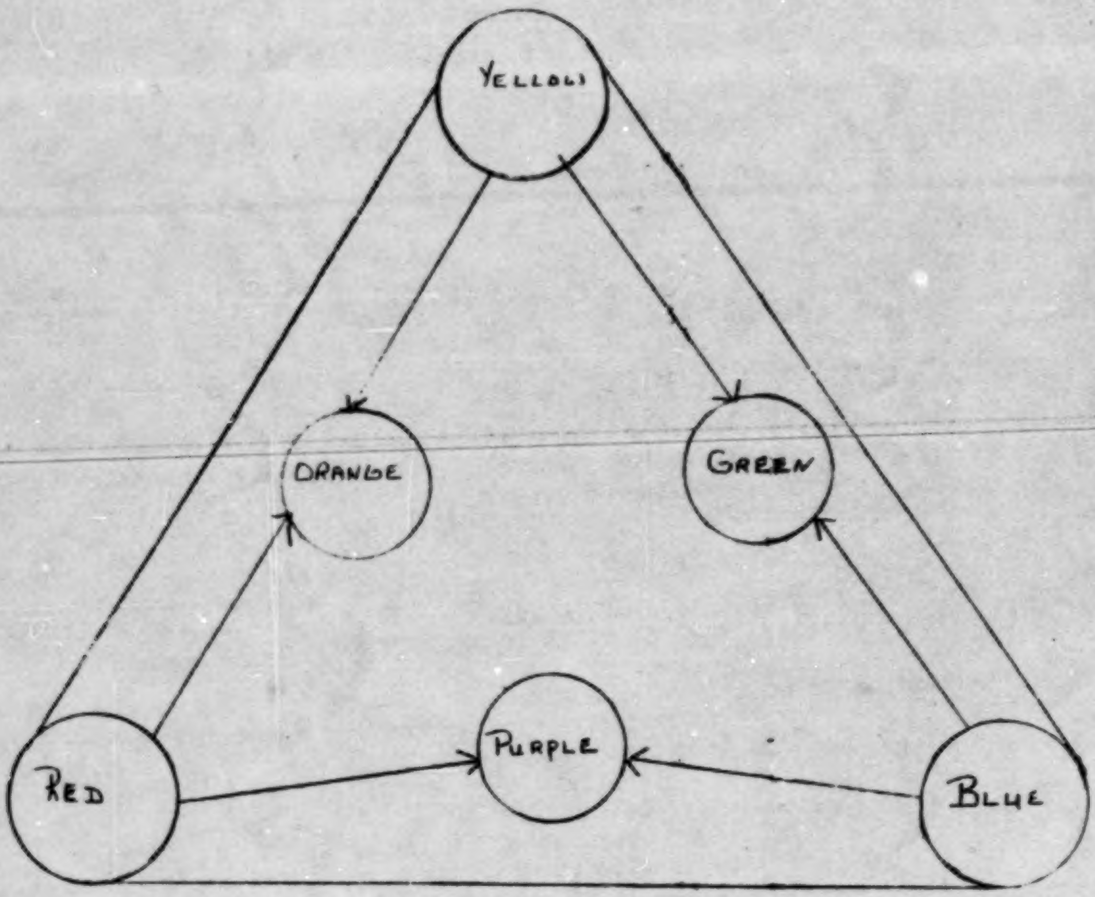
1. Get dyes on clothes or hands.
2. Immerse dry fabrics.
3. Wear good clothes.

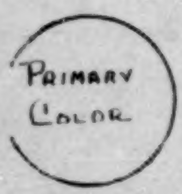
Information:

1. Same as 1-B.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 6 students.

COLOR WHEEL





YELLOW + RED = ORANGE

RED + BLUE = PURPLE

BLUE + YELLOW = GREEN

DIAGRAM 1

LET'S TIE AND DYE A T-SHIRT

ACTIVITY 3-D

Here's Why:

The student will be able to apply one or more of the folds in properly dyeing a T-shirt in a design he has selected.

Here's What You'll Need:

1. T-shirt
2. same as 1-B and 2-B

*Here's How To Do It:

1. Have student select one or more designs from the five samples on display.
2. Two colors should be used on the T-shirt. Remember: Dye in the lightest color first.
3. Follow directions in 2-B.
4. Rinse thoroughly and let dry.

NOTE: The instructor will mix and heat all dyes. Dyes will blend to make different colors. Example: If you dye in yellow first and then in blue you will get some green where colors overlapped.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 6 students.

SILK SCREEN PRINTING

ACTIVITY 4-D

Here's Why:

The student will be able to letter a T-shirt by pulling a squeegee over a stencil.

Here's What You'll Need:

1. tie-dyed T-shirt
2. squeegee
3. silk screen ink - dark (black)
4. silkscreen
5. stencil (Fort Benton Elementary)
6. paint thinner or turpentine
7. rags
8. backing board (large enough to fit inside a T-shirt) masonite or plywood approximately 16" x 24"
9. newspaper
10. place to hang shirts

***Here's How To Do It:**

1. Stretch the dry tie-dyed T-shirt over the backing board so that the board is inside the shirt. (This acts as a support for the silk screen.)
2. The instructor will prepare the screen for printing.
   a. Make the stencil.
   b. Apply stencil to the screen.
   c. Apply ink to the screen.
   d. Set squeegee on the screen.
3. With the help of the instructor, the student will place the screen on a light portion of the shirt and pull the squeegee across the screen.
4. Remove shirt from backing board.
5. Hang and let dry, approximately one hour.
   NOTE: When performing this operation, have all students ready with dry shirts in hand. If the silk screen is left standing for long periods of time, ink in the fibers will dry; therefore cleaning screen will be necessary. If all students are ready to print, only the finished cleaning of the screen will be necessary. Work rapidly.

Don't:

1. Touch the silk screen print on the shirts until ink is dry.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 6 students.

Laundering Hints:

Be sure to wash tie-dyed fabrics separately in cool water to protec
colors and other washables.

Information:

1. Wankelman, Willard; Wigg, Philip and Marietta, *A Handbook of A and Crafts for Elementary and Junior High School Teacher*, Will C. Brown Co., Inc., Dubuque, Iowa, 1961, p. 196.

METAL TOOLING

ACTIVITY 1-E

Here's Why:

The student will be able to choose a pattern and transfer it to the metal.

Here's What You'll Need:

1. tracing paper or medium hard thin paper
2. scissors
3. copper foil
4. masking tape
5. sharp pencil 2H with eraser
6. rubber pad or newspaper
7. a design from projects 1-7

*Here's How To Do It:

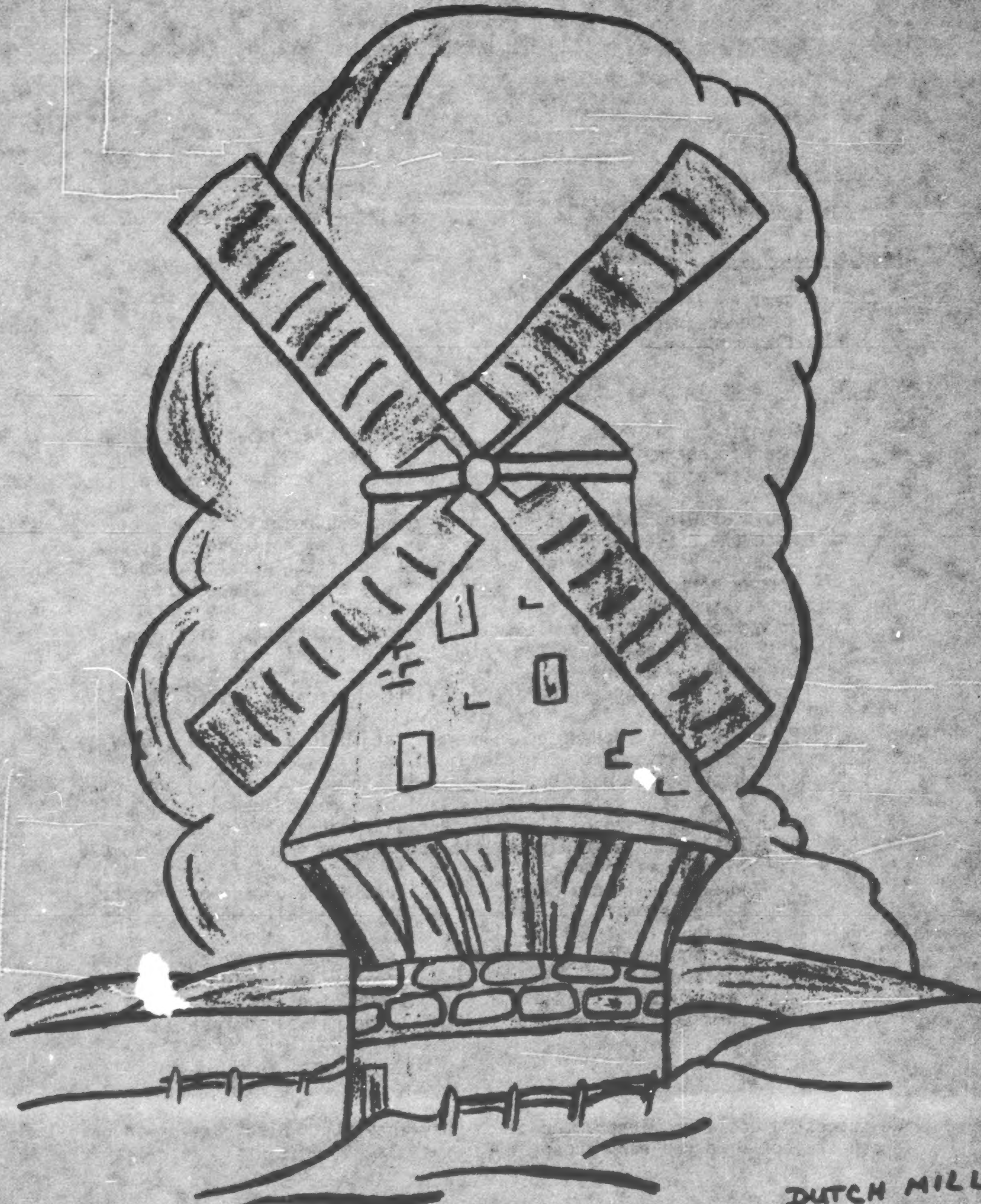
1. Choose one of the projects.
2. With a sharp pencil, carefully trace the design on a piece of medium hard thin paper.
3. With a pair of scissors cut out the design leaving 1/4" margin.
4. Select a piece of copper foil.
   a. Clean both sides with fine steel wool.
5. Attach the pattern to the surface of the metal with masking tape. Smooth the pattern on the metal.
6. Place the metal on a rubber pad or newspaper with the face side up.
7. With a pencil lightly but firmly trace the outline of the design. Use a straight edge when drawing straight lines.

Instructional Materials:

1. Smith, Robert E., Raising, Tooling, McKnight & McKnight Publishing Co., Bloomington, Illinois, 1961, p. 88.
2. Pauly, Almarin H., Copper Tooling, Guildcraft Projects in Handicraft, 1460 E. 4th St., Los Angeles 33, Calif, 1948, p. 30.

Patterns are on file in the counselor's office. Copies are available. Example is attached.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 10 students.



DUTCH MILL

DIAGRAM 1

TOOLING THE METAL

ACTIVITY 2-E

Here's Why:

The student will be able to raise the metal to form a relief.

Here's What You'll Need:

1. same as 1-E
2. tempered (hard) masonite
3. flat modeler

***Here's How To Do It:**

1. Turn the metal with the face side down on the rubber pad or newspaper; then with a pencil draw a line about 1/32 of an inch on the traced design. Make this line somewhat heavier than the first line.
2. Avoid drawing intersecting lines beyond the point of intersection.
3. With the eraser end of the pencil or modeling tool use light but firm strokes; begin a gradual depression of the metal within the border of the design. If available, use a spoon-shaped tool for depressing the wide areas.
4. Turn the piece over and examine the tooled surface. If the surface has not been raised to the height desired, again turn the work piece face down and repeat step 3.
5. Continue as in steps 3 and 4 until the surface is raised to the desired height.
6. Place the work face up on a smooth flat surface, such as a heavy piece of glass, marble, or tempered (hard) masonite.
    a. With a flat modeler, smooth all flat areas, working the metal toward the raised surfaces (all background areas).
7. With a suitable modeling tool, make distinct any lines that may have become undistinguishable in the raising process. For example, the veins of a leaf, or the eyes of an animal.
    a. When such is the case, some pliable means of supporting the raised surface is often necessary, especially when the indentations involve fine details.
    b. The procedure recommended is to fill the back of the raised surface with plasticene, then place the object on a smooth, hard surface. Then with a small modeling tool carefully form the designed depressions on the raised surface.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 10 students.

MOUNTING AND FINISHING

ACTIVITY 3-E

Here's Why:

The student will be able to fill the back of his copper and mount it on masonite and oxidize.

Here's What You'll Need:

1. plasticene
2. masonite
3. liver of sulphur (potassium sulfide)
4. small bristle brushes 1/2"
5. fine steel wool
6. can of clear spray lacquer
7. picture hanger

*Here's How To Do It:

1. Before you can polish your picture after it is tooled, you must provide support for the metal to prevent pushing the raised portion down as you steel wool.
    a. If you haven't tooled the piece out much or if you are using heavier gauge metals, it sometimes isn't necessary to provide this support.
    b. A copper picture is a little like a sign saying "Wet Paint"; people must poke it with their fingers to see if it is really raised or whether it is merely an optical illusion.
2. Knead small amounts of plasticene in hands until it becomes soft and pliable.
    a. With the face down on newspaper, fill the depression very carefully until they are the same level as the background.
3. Mount copper on a piece of masonite which is one inch smaller in length and width. Bend edges of the copper over the masonite.
    a. This can be done with a piece of soft wood or with the fingers. If fingers are used, do not drag them across the metal edge, merely bend it.
4. Buff with fine steel wool until all traces of oxidation are removed.
5. Go outside and apply liver of sulphur to the copper surfaces. Keep brushing to a minimum.
6. When dry, steel wool the areas you wish to be highlighted. (Usually the highest raised portions.)
7. Spray with clear lacquer. (This prevents any further oxidation.)
8. Attach hanging device on back.

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*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 10 students.

INTRODUCTION

Candle crafting is not dangerous if normal precautions are taken and common sense is applied. Listed below are some suggestions that should be read and remembered.

1. Turn handle of melting pots away from front of stove.
2. Use a thermometer whenever heating wax. Do not heat wax over 300°F.
3. Keep baking soda and lid for melting pot near stove.
4. Use hot pad or heat resistant gloves when handling hot wax.
5. Never leave heating wax unattended. When wax catches fire it is usually in the forgotten pot.

IN CASE OF WAX FIRE:

If fire is in the melting pot, cover with lid and remove from heat. If the fire is due to wax spilled on the burner, turn heat off and sprinkle with baking soda. Do not use water to extinguish wax fire.

IN CASE OF BURNS:

If hot wax is spilled on body areas, quickly submerge the burned area in cool water to remove the heat from the wax. If the skin is badly burned, do not remove the wax. Cool and contact a physician.

SAND CANDLE

ACTIVITY 1-F

Here's Why:

The student will be able to prepare the sand for casting, pour the wax and set the wick.

Here's What You'll Need:

1. commercial candle wax
2. wax scent
3. wicking
4. wax colors
5. heating apparatus
6. melting pots
7. thermometer
8. spoon
9. ladle
10. wick clip

***Here's How To Do It:**

1. Mix sand and water (approximately one gallon water to 50 pounds of sand).
   a. Add water to sand until it reaches a plaster consistency or until it will hold its own shape.
2. After mixing the water and sand, pound the sand with hands as it is loosely packed and full of air holes. The airholes will cause defects in your candle and must be eliminated.
3. Use a thin spoon and dig a hole in the sand. Make a small hole first and then enlarge it to the desired size (approximately 2" or 3" diameter by 4" or 5" in heighth).
4. Make a cavity in the sand the size and shape you select for your candle. In addition to the size of the cavity, your candle will have 1/2" of sand on the outside surface.
5. Make the holes for the feet of the candle not less than 1/2" in diameter so they will always balance. If you use more than three legs, the candle will probably wobble.
6. To make a sand wall on this candle the wax has been heated to 270-280°F. Use a ladle to catch the wax as it is poured or the wax will wash out the sand and destroy the shape of the bottom of the candle.
   a. Quite a lot of wax will be absorbed into the sand. Maintain the original wax level by adding wax as necessary.
7. Attach wick clip to wire core wick and place in center of candle. The wick must sit on top of the sand forming the safety shield. The purpose of the safety shield is to prevent the wick from melting through the bottom of the candle.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 5 students.

8. As the wax cools, it will shrink the same as in the commercial molds. Punch holes around the wick until it has enough holes to let the wax run into the cavity when you refill the wall.
    a. Add more hot wax. Fill to 1/4" below the top of the sand wall. It may have to be filled more than once.
9. Depending on the size of the candle, the time required for the candle to cool will vary from 2 to 8 hours. It is best to wait until candle feels cool and then dig away the sand from the candle.
10. Place fingers under the candle and carefully lift candle out of the sand. If the wax is quite cool you can place the candle under a cold water faucet or wash the sand off in the water bucket. Don't run the sand down the sink.
11. If it is desirable to have a sand casting without any sand, spray the sand with water after completing the cavity. The water will cause the wax to cool and harden quickly. Pour wax at about 160°F and there is no sand shell.

Don't:

1. Run the sand down the sink drain.
2. Heat wax over 300°F.
3. Leave heating wax unattended.

Instructional Materials:

1. Gick, James W., The Candle Maker, HP 402, Inglewood, California, 90302, 1971, p. 33.

MULTI-COLORED BREAKAWAY GLASS MOLD CANDLE

ACTIVITY 2-F

Here's Why:

The student will be able to mold multi-colored candles in glass containers.

Here's What You'll Need:

1. hammer (metal)
2. paper or cloth bags
3. bottles
4. commercial candle wax
5. wax colors
6. wax scents
7. wicking
8. nails, nuts, screws or washers
9. thermometer
10. heating apparatus
11. melting pots
12. gloves

***Here's How To Do It:**

1. Practically any container that will not metl at 200°F and is not porous can be used as a mold to form candles.
2. Do not pour heated wax at more than 200°F into these containers as the glass may break.
3. Pour about 1" of wax into bottom of glass mold. Hang a wick with a nail, nut, screw or washer on the end of wick into the center of the wax. (Allow about 1/4" between wick and bottom of bottle.)
4. When hard, add about 1" of another color wax. Bottle may be tilted a little for unusual effects. Be sure to keep the wick centered in the bottle.
   a. Continue adding colors as in step 4 - tilt if desired.
5. After wax has completely cooled and is hard, place the container in a paper bag. Glass chips can fly whey bottles are broken. Use this safety precaution to protect your eyes.
   a. Close bag and strike with a hard object such as a hammer. To break the container, don't strike any harder than necessary as you can bruise the candle and the mark will show.

Instructional Materials:

Same as 1-F

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 5 students.

ICE CANDLES

ACTIVITY 3-F

Here's Why:

The student will be able to mold an ice candle that has irregular holes.

Here's What You'll Need:

1. commercial wax
2. wax colors
3. wax scent
4. wicking
5. thermometer
6. heating apparatus
7. melting pots
8. two molds (one small tapered mold and one mold 2" larger in diameter but same heighth)
9. ice cubes

*Here's How To Do It:

1. Pour a small taper mold.
    a. Attach wick to bottom of mold.
    b. Pour wax about 1" from top of mold. Refill when necessary - 200°F.
2. When cool, place small wax candle into center of large mold. (There should be about 1" space around small mold.)
    a. Pour about 1/4" of different colored wax to the base of small candles.
3. When hard, fill space between core and mold with 2" layer of crushed ice or small ice cubes.
    a. Pour wax to within 1/2" top of ice.
    b. Add another layer of ice and then wax.
    c. Repeat layers until candle is heighth desired.
    d. Set aside to cool. Remove candle from mold and ice has turned to water.
    e. Allow candle to dry changing its position, from time to time, so water will drain out through holes.

Instructional Materials:

1. Same as 1-F.
2. Poured Candles and Trim, #156 Craft Course Publishers, Inc., Rosemead, California, 1965, p. 23.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 5 students.

TWO-PIECE CANDLE MOLDS

ACTIVITY 4-F

Here's Why:

The student will be able to mold a candle from a two-piece plastic mold.

Here's What You'll Need:

1. same as 3-F
2. two-piece plastic mold
3. knife

***Here's How To Do It:**

1. Attach wick and secure mold pieces tightly together.
2. Pour wax about 200°F into mold. Refill any "wells" made by shrinkage. Allow wax to harden.
   a. Wax mold can be submerged in cool water to speed up cooling.
3. Remove candle from mold and trim seam marks with a knife.
4. If casting has a dull finish, dipp into boiling water and then immediately into cold water for a shiny finish.

Instructional Materials:

1. Same as 3-F.

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*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 5 students.

LEATHERWORK

ACTIVITY 1-G

Here's Why:

The student will be able to measure and cut his belt to the proper length.

Here's What You'll Need:

1. a strip of nature tanned leather 1 1/2" wide and at least 10" longer than waist measurement.
2. sharp knife
3. ruler
4. pencil
5. straight edge
6. wood for backing
7. beveler
8. a pattern belt

*Here's How To Do It:

1. Place leather strap around waist and add 10" onto the waist length.
2. Cut both edns with the sharp knife using a straight edge (Diagram 1).
3. Bevel all edges.

Don't:

1. Put pencil marks on grainside of leather. (Put them on the edge or flesh side.)

Instructional Materials:

1. Cherry, Raymond, General Leathercraft, McKnight & McKnight Publishing Co., Bloomington, Illinois, 1955, p. 144.
2. Stohlman, Al; Patten, A. D.; Wilson, J. A.; Leatherwork Manual, Tandy Leather Compamy, Fort Worth, Texas, 1969, p. 160.
3. Nature Tanned, Tandy Leather Company, p. 16.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 6 students.

BUCKLES AND SNAP FASTENERS

ACTIVITY 2-G

Here's Why:

The student will be able to punch holes and apply snap fasteners in proper fashion on his belt.

Here's What You'll Need:

1. same as 1-G
2. leather punch
3. sockets and buttons
4. studs and eyelets
5. buckle
6. "Snap-All" set
7. wooden mallet
8. dividers

*Here's How To Do It:

1. Lay out lines for buckle tongue holes, eyelets, and sockets (Diagrams 1 & 2).
    a. The buckle tongue holes and inserts on the flesh side of the leather should be larger than the diameter of the buckle tongue.
    b. Socket and stud holes should be about the same diameter as the socket and stud.
    c. Use divider to find center line. Scribe lightly on the flesh side of the leather.
2. Install fasteners as in Diagrams 2 & 3.
3. Make a tongue keeper.
    a. Cut a leather strip 1/2" wide and 3 3/4" long, and bevel long edges.
    b. Do not bevel the ends.
    c. Punch lace holes with a single prong chisel 1/8" from each end. (Two holes on each end.)
    d. Put the flesh sides together and stitch it with leather lace.
    e. Open it as in Diagram 1 and hammer it gently with a wooden mallet. (This will crease the edges of the leather and flatten the stitches.)
4. Assemble the tongue keeper, buckle, and snaps.
5. Try it on for size.
6. Take off the buckle and tongue keeper, unfasten the snaps. You're ready to start tooling.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 6 students.

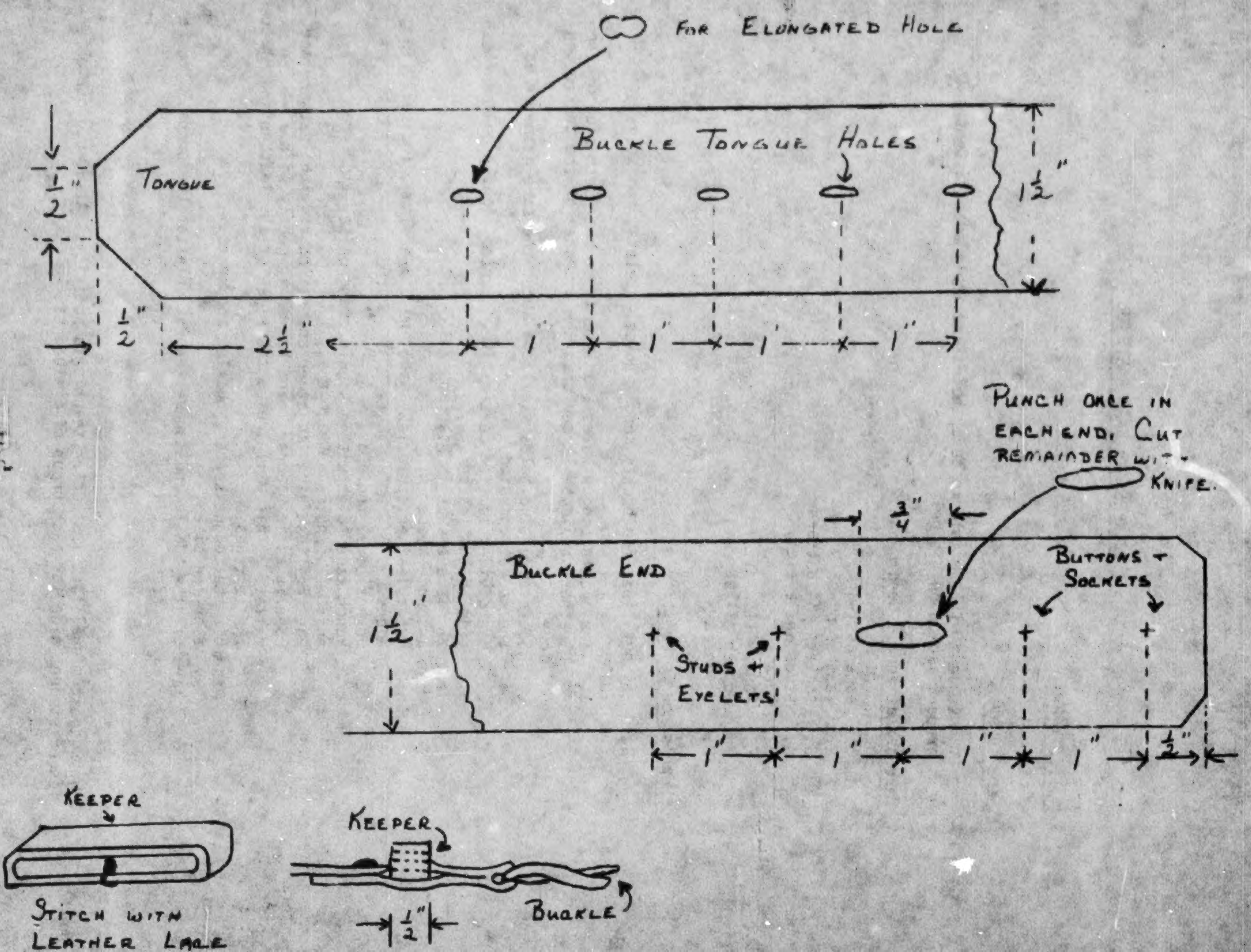
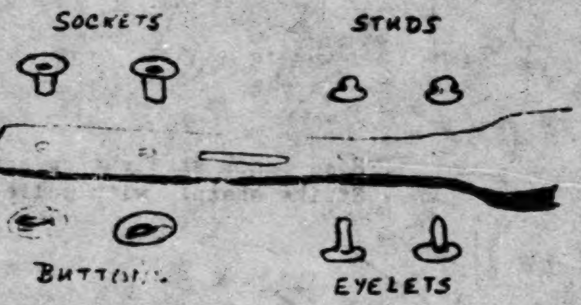
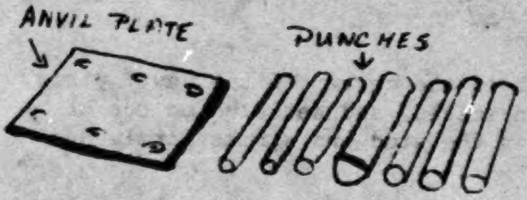

For Elongated Hole
Buckle Tongue Holes
Tongue
1/2"
1/2"
2 1/2"
1"
1'
1'
1"
1 1/2"
Punch once in each end. Cut remainder with knife.
3/4"
Buckle End
Buttons + Sockets
Studs + Eyelets
1 1/2"
1"
1"
1"
1"
1/2"
Keeper
Stitch with Leather Lace
Keeper
Buckle
1/2"

Diagram 1

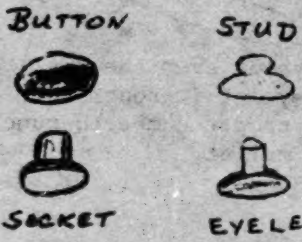
The illustrations below show the process of setting snaps on a belt. The same procedure is used on key cases, pocket of a billfold, or any other article.



Snaps attach to belt as shown above

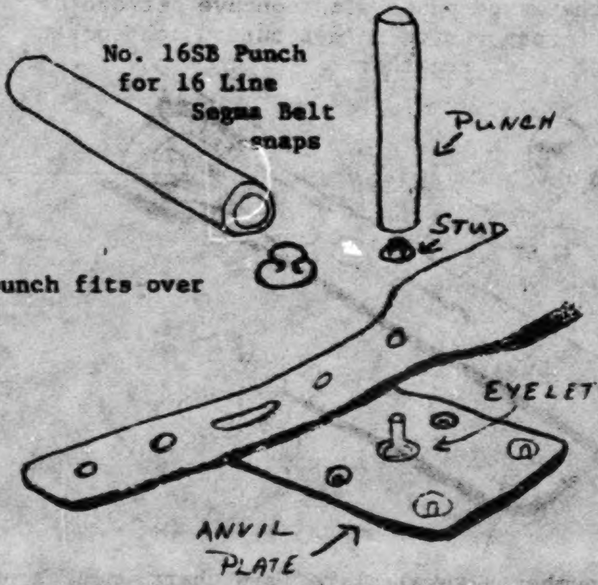


"Snap-all Set"



"Segma Belt Snap Parts (line

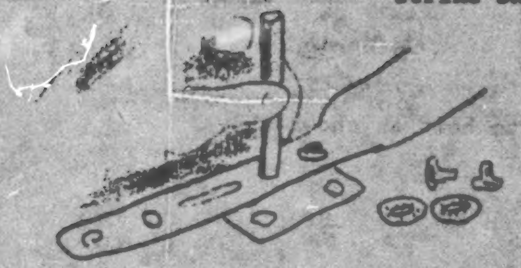
This tool set can be used with "Segma" line and "Bird Cage" line snaps.



No. 16SB Punch for 16 Line Segma Belt snaps

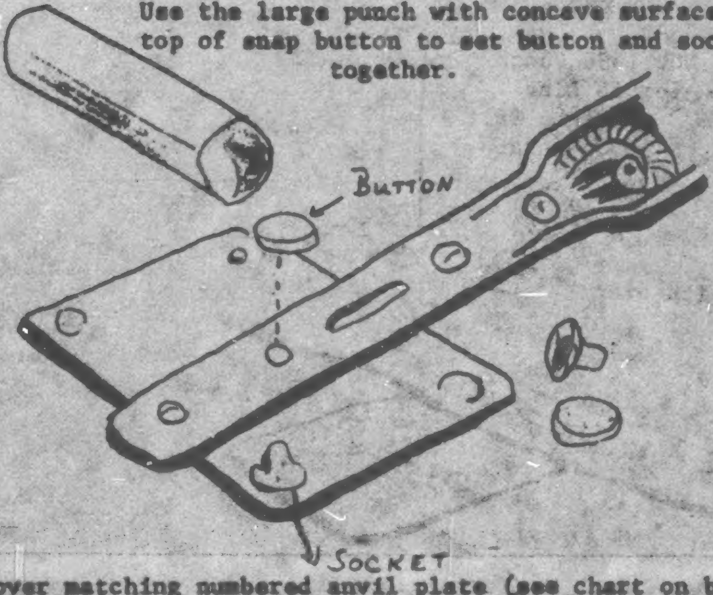
Hole in punch fits over snap stud

Hold punch straight up and down.
Strike sharply with mallet to set snaps.



Place the snap eyelet over the small anvil in the center of the anvil plate. Place belt over eyelet (through hole as indicated) and set stud on top of eyelet. Set the proper numbered punch over the stud and strike firmly and sharply with the mallet.

Use the large punch with concave surface on top of snap button to set button and socket together.



Place socket over matching numbered anvil plate (see chart on back of Snap-All tool set) Push belt over socket; set button on top of socket and set concave punch over button. Strike firmly with mallet to set the parts.

CREATING YOUR DESIGN

ACTIVITY 3-G

Here's Why:

The student will be able to create several designs on scrap leather and choose one for his belt.

Here's What You'll Need:

1. several leather stamping tools (2 or 3 for each student)
2. wooden mallet
3. a hard surface (desk)
4. dividers
5. nature tanned leather scraps 1 1/2" wide
6. several examples of designs, Diagrams 4-11
7. student's belt

***Here's How To Do It:**

1. Place leather on a hard surface with the grain side up.
2. Stamp each tool given you into the leather (1/16" depression).
3. Create a symmetrical design from one or more of the stamping tools by repitition (look at examples, diagrams 4-11).
4. Dividers are used to mark guide lines along the width; mark very lightly.
5. Guide lines along length should be estimated.
6. Have student create as many combinations as possible.
7. Get approval from instructor to start tooling your belt.
   a. Show him the sample you want to use.
   b. Remember this design should be your own. Examples given for ideas and not for copying.
8. Stamp your belt by repeating your design over the length of your belt. Stop stamping at the buttons.

Instructional Materials:

Diagrams are on file in the counselor's office. Copies are available. An example is attached.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 6 students.

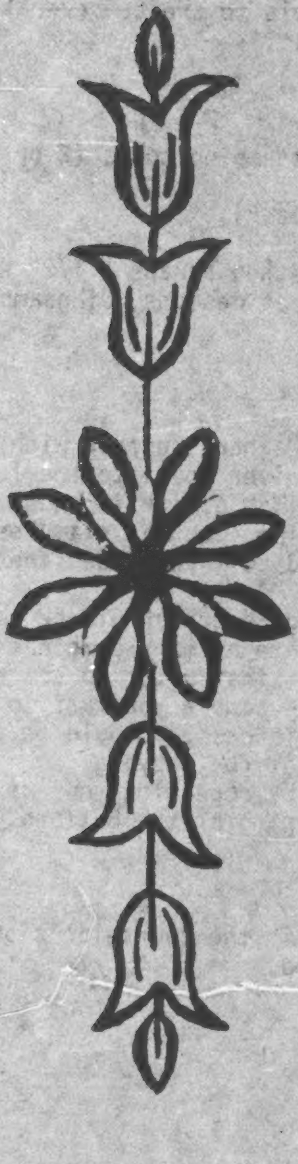


DIAGRAM 1

FINISHING YOUR BELT

ACTIVITY 4-G

Here's Why:

The student will be able to properly apply a dye and a finish to his belt.

Here's What You'll Need:

1. several colors of leather dye
2. cotton cloth (small pieces)
3. small block of wood
4. solvent
5. plastic or rubber gloves
6. carnauba cream
7. dauber

***Here's How To Do It:**

1. Wrap a length of cloth around a wooden block. Apply dye to the cloth with a dauber and blot on a paper towel until cloth has enough dye remaining to color only the surface of the leather. If too much dye remains, it may run into the impressions.
2. With the cloth, apply the dye to surface of leather, rubbing briskly so a burnished effect is achieved. Apply more dye to cloth as needed, blotting before applying to leather. Dye all edges. The basic colors recommended are: dark brown, medium brown, tan or a combination of red (applied first) and dark brown.
3. After dye has been applied, wait until leather dries before applying a finish. Carnauba cream makes an excellent finish for this type of leather. With a damp cloth, apply a light coat of carnauba cream to surface of leather, then buff.
4. Assemble belt.
   NOTE: If the student finishes early, some small quick projects will be available. They are in kit form so all the student has to do is tool, assemble, and finish. Examples: combcase, coin purse, and key case. See Activity 5-G.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 6 students.

OTHER LEATHER PROJECTS

ACTIVITY 5-G

Here's Why:

The student will be able to properly complete a selected kit.

Here's What You'll Need:

1. a selection of kits
2. several stamping tools
3. wooden mallet
4. a hard surface
5. dividers

***Here's How To Do It:**

1. Apply selected design and assemble as per directions on kit.

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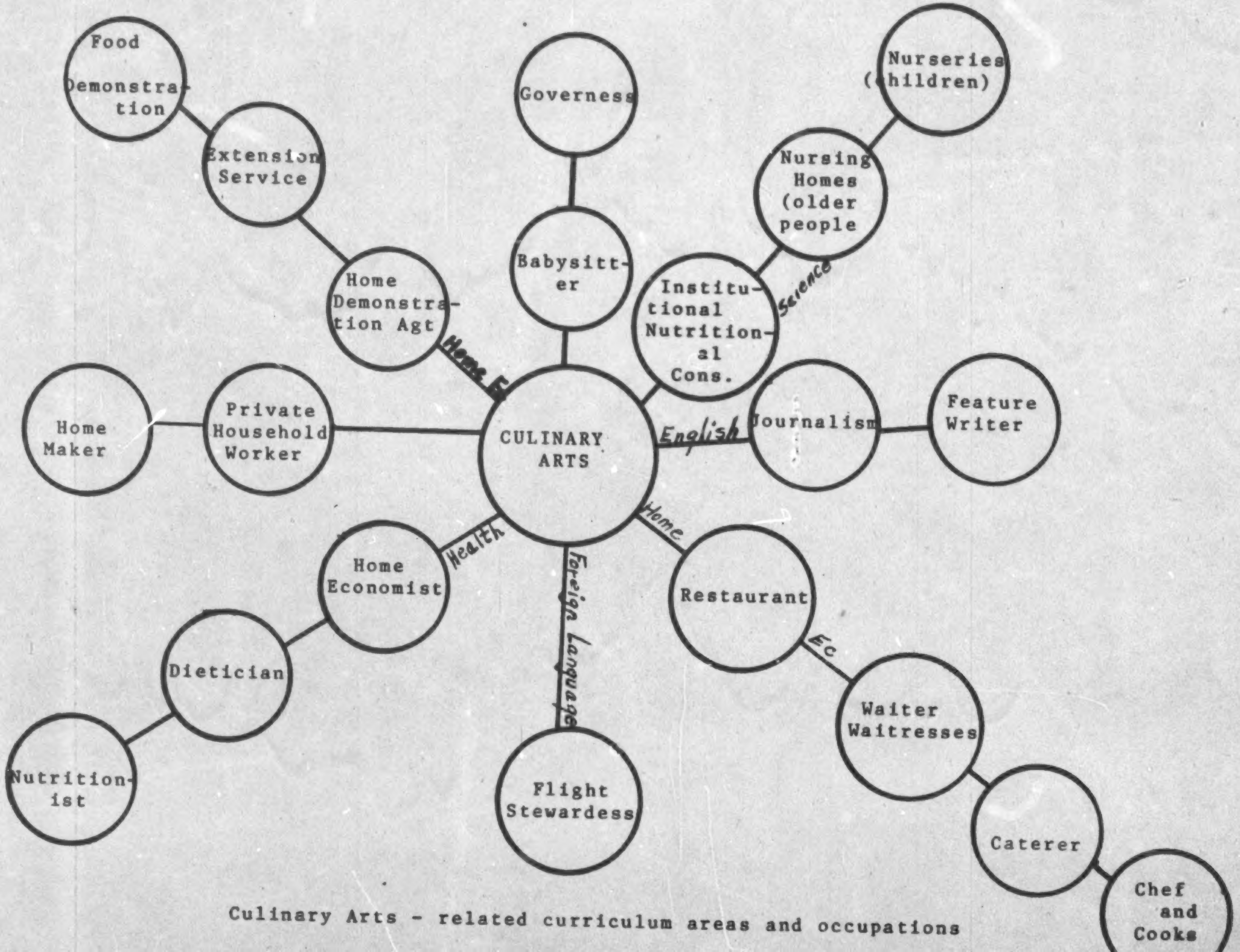
*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of 6 students.



Culinary Arts - related curriculum areas and occupations

CULINARY ARTS

ACTIVITY NO.	TITLE	ACTIVITY
1-A	It's Cookie Time	Simple cookie preparation
2-A	Let's Trim a Cookie	Decorating a cookie
1-B	Mix It Up	Bread making
2-B	Get It Together	Bread making from a mix
3-B	Easy Does It	Preparing convenience foods
1-C	What's Your Name and Use	Learning utensils
2-C	Let's Set the Table	Table setting
3-C	I'm Hungry	Making lunch
4-C	Spic & Span	Washing dishes
1-D	How Much Do I Need	Measuring ingredients
2-D	Let's Flip the Greens	Preparing vegetables for a salad
3-D	Let's Bake It In A Pot	Making casseroles
1-E	Early To Rise	Making breakfast
2-E	What Makes It Tick	How the stove works
1-F	Potpourri	Foreign foods
1-G	Baking In The Breeze	Campout cooking

ACTIVITY NO.	COST/STUDENT	GRADE LEVEL
1-A	less than .25	K
2-A	less than .25	K
1-B	less than .05	1
2-B	less than .25	1
3-B	less than .50	1
1-C	.00	2
2-C	.00	2
3-C	.50	2
4-C	less than .05	2
1-D	.00	3
2-D	less than .15	3
3-D	.58	3
1-E	.50	4
2-E	.00	4
1-F	.70	5
1-G	1.60	6

TERMINOLOGY

1. CAULIFLOWERETTES - if you compare the cauliflower head with a floral bouquet, the cauliflowerettes are each flower in the bouquet.

2. CELERY CURLS - slicing the celery stalk across the grain. The slices are the celery curls.

3. COLD CUT MEATS - meats, such as bologna, salami, etc., that are generally eaten cold in salads or sandwiches.

4. CORE OF LETTUCE - the solid stem-like fibers found in the heart of the head of the lettuce.

5. DIAGONALLY - a straight line drawn from one corner of a rectangular figure to the opposite corner of the same rectangular figure.

6. GRATER - a tool of aluminum, stainless steel, or tin that comes in various shapes and sizes. It has various size holes punched or drilled in sides. It is used to grate food.

7. SCRAPE - using a paring knife, scratch the peel off instead of peeling. Scraping removes less of the peel, thereby retaining the nutrients that lie just beneath the peel. Usually done to carrots and sometimes potatoes.

IT'S COOKIE TIME

ACTIVITY 1-A

Here's Why:

Given a ball of cookie dough, the student will roll out, cut and bake six cookies.

Here's What You'll Need:

1. the ingredients are included in the recipe which follows
2. cookie sheets (one for every two students)
3. rolling pins (one for each student, if possible), two sticks 1/8" thick and about 1-1½ feet long (width is irrelevant)
4. various shapes of cookie cutters
5. spatulas (one for every two students)
6. cooling racks (one for every two students)
7. enough cupboard or table space to roll out dough
8. ovens
9. flour for rolling out dough
10. shortening to grease baking sheets

Here's How To Do It:

1. Follow the recipe for sugar cookies, showing the students how the dough is mixed.
2. Let the students add the ingredients while the instructor mixes.

SUGAR COOKIES RECIPE

2 C. pre-sifted all-purpose flour
½ tsp. salt
1 tsp. baking powder
½ C. margarine
1 C. sugar
2 eggs, well beaten
1 tsp. vanilla

Yield: 40 cookies
Oven: 350°F
Time: 10 to 12 minutes

Combine flour, salt, and baking powder. Cream together margarine and sugar until fluffy. Add eggs and vanilla to creamed mixture. Stir. Add flour mixture to creamed mixture and stir until mixture rolls around in bowl. Chill in refirgerator until class is ready to work with.

Variations of this recipe:

Orange Cookie:
Add: 1 tsp. orange joice, grated rind of ½ orange
Subtract: 1 tsp. vanilla

Peanut Butter Cookies:
Add: ½ C. peanut butter
Subtract: ½ C. margarine

Lemon Cookies:
Add: ½ tsp. lemon extract
2 tsp. grated lemon rind
Subtract: 1 tsp. vanilla

3. Let the students practice rolling out dough.
   a. Place the two flat sticks beside the dough, one stick on each side of the dough so the sticks are parallel to each other. They should be close enough together that the rolling pin will rest on the sticks when the dough is 1/8" thick.
   b. Place dough on a slightly floured surface between the two sticks. Lightly make one stroke with the rolling pin.
   c. Turn dough to the other side and repeat. Continue this process until dough is rolled to a thickness of 1/8". (If the rolling pin is resting on the sticks, the student will not be able to roll the dough too thinly.)
   d. On these practice cookies, the students should not decorate.
   e. With a spatula, lift cookies onto greased baking sheets.
   f. Bake 10 to 12 minutes at 350°F.
   g. Remove from cookie sheets and cool on cooling racks. An adult should remove the cookie sheets from the oven.

LET'S TRIM A COOKIE

ACTIVITY 2-A

Here's Why:

Given a ball of cookie dough, the student will roll out, cut, bake and decorate six cookies.

Here's What You'll Need:

1. same as Activity 1-A
2. decorating equipment:
    a. sugar
    b. sugar and cinnomen
    c. raisins
    d. colored decorettes
    e. chopped nuts
3. egg white to brush on dough before decorating (about 2 per 3 students should be adequate)

Have You Done This Yet:

1. Rolling out process

Here's How To Do It:

1. Demonstrate cookie cutting process. Dip cooky cutter into a little flour. Cut dough with cooky cutter. After each time a cookie is cut, the cutter should be dipped in flour before another cookie is cut.
2. Demonstrate decorating.
    a. After cookie has been cut and placed on cookie sheet, brush each cookie with beaten egg white.
    b. Sprinkle toppings on cookies. Toppings that can be used: sugar, sugar and cinnamon mixture, raisins, colored decorettes, chopped nuts and others.
3. Give each student a ball of dough about the size of a baseball.
4. Let him roll out the cookies, cut with cooky cutter and decorate.
5. Place cookies on greased cookie sheet and place in oven for 10 to 12 minutes. See part 4 of Activity 1-A.

Don't:

1. Let students take cookies out of oven.
2. Let students remove cookies from the cookie sheets without using an oven mitt.
3. Let students frost cookies.

Here's Where You Might Find More Information:

1. Better Homes and Gardens New Cook Book, Meredith Press, New York, 1968.
2. Barclay and Barclay, Teen Guide to Homemaking, McGraw-Hill Co., New York, 1967, p. 482.

The Following Publications Were Utilized in Preparing This Unit:

1. McDermott, Irene E., Food For Modern Living.

MIX IT UP

ACTIVITY 1-B

Here's Why:

Given a batch of dough, the student will be able to form a loaf and bake the bread.

Here's What You'll Need:

1. Perfect Bread Recipe

   2 pkg. dry yeast
   ½ C. warm water (not hot water)
   4 C. milk, scalded (water can be used)
   ½ C. sugar
   3 tsp. salt
   2 tbsp. shortening
   12-14 C. all-purpose flour
   (½ lb. butter and sugar and cinnamon for eating the bread)
2. various sizes and shapes of baking pans
3. Kool-aid
4. oven
5. mixing utensils

Here's How To Do It:

1. Soften dry yeast in warm water.
2. Combine hot milk, sugar, salt and shortening. Cool to lukewarm. Liquids must be cooled before adding the yeast or the heat will kill the yeast.
3. Add yeast to liquid mixture.
4. Add 4 cups of flour to mixture and mix well.
5. Add another 4 cups of flour and mix as much as possible with spoon. To finish mixing, grease hands and mix with hands.
6. Add remaining 4 cups of flour and continue mixing with your hands. May need more flour. Dough should not stick to hands. For best results, work at least 10 minutes kneading the dough.
7. Grease bowl. Shape dough into bowl and place in bowl. Lightly grease top of dough. Put in warm place away from drafts and let rise until the dough is double its original size.
8. Punch down with one thrust of the fist through the center to the bottom of the bowl. Only punch down once. Flip the dough over so the bottom is on top. Let rise a second time until double its size. NOTE: It usually takes longer for the bread to rise the first time than it does the second time.
9. Place the bread in lightly greased pans and lightly grease the top of the dough.
10. Bake at 400°F. The bread is done when it is golden brown and has a hollow sound when tapped with the fingers.

11. Remove from oven and immediately remove bread from pan. Butter tops for a softer crust.

Don't:

1. Let students take bread out of oven.
2. Be concerned if the bread is lumpy or gray. This is for the experience more than for the finished product.

The Following Publications Were Utilized in Preparing This Unit:

1. Better Homes & Gardens New Cook Book, Meredith Press, New York, 1968, p. 35.

GET IT TOGETHER

ACTIVITY 2-B

Here's Why:

The student will be able to bake bread from a commercial mix.

Here's What You'll Need:

1. commercially refrigerated dough mix per group of 3 students
2. pan or cookie sheet required by mix
3. oven

Here's How To Do It:

1. Follow instructions on package.

EASY DOES IT

ACTIVITY 3-B

Here's Why:

Given the ingredients for several "convenience foods", the student will prepare the food.

Here's What You'll Need:

The ingredients are listed with each separate activity. The teacher may choose the activities he or she wishes. All activities do not have to be completed. These activities are to be done the second day of the mini-course; the first day being involved in bread production.

Here's How To Do It;

1. Divide students into groups of three.
2. To mix package mixes with liquid, use an air-tight cover for students to shake ingredients.
3. Show students how to measure liquids with a measuring cup.
4. Follow instructions for mixing, cooling and/or baking on package.
5. Let butter soften at room temperature.
6. For each activity chosen, each group of 3 students should do each one. Each group of 3 students will complete the chosen activity.

ACTIVITIES:

No-Bake Cookies:

ORANGE NO-BAKE COOKIES

3/4 box powdered sugar
1 1-lb. pkg. vanilla wafers, crumbled
1 stick margarine, melted
1 C. chopped nuts
1 6-oz. can frozen orange juice
1 can coconut
Mix all ingredients except coconut in large bowl with hands.
Shape cookies; roll in coconut.
Yield: 30 dozen

Milk Shakes:
1 C. cold milk
1/4 C. chocolate syrup (or other favorite syrup flavors)
1 pt. vanilla ice cream
Mix just to blend. Yield: 3 servings

Kool-Aid:
If this was not used the first dya, it should be an activity for the second day.

Instant Pudding:
Purchase the instant pudding that requires no cooking.
Students may shake the pudding mix and liquid in an air tight container.

Don't:

1. Clean up after children. Let them wash dishes and clean area. Emphasize this is a part of cooking.

The Following Publications Were Utilized In Preparing This Unit:

1. Better Homes & Gardens New Cook Book, Meredith Press, New York, 1968, p. 20.
2. The Home Economics Teacher's Cookbook, Favorite Recipes Press, 1970, p. 270.

WHAT'S YOUR NAME AND USE

ACTIVITY 1-C

Here's Why:

The student will learn the various uses of dining utensils.

Here's What You'll Need:

1. 4 plates; dinner, luncheon, salad, saucer
2. 2 bowls; cereal, fruit
3. 2 glasses; tumbler, juice
4. 2 cups; cup and mug
5. 1 knife; dinner
6. 2 forks; dinner, salad
7. 2 spoons; tablespoon, teaspoon
8. 1 napkin

Here's How To Do It:

1. Explain the use of each article while holding it for the students to see. NOTE: May point out smaller utensils are often used for smaller members of the family because they can handle them better than the large utensils.
    a. Plates - dinner, luncheon, salad, and saucer
    b. Bowls - cereal bowl and fruit bowl
    c. Glasses - tumbler and juice
    d. Cups - cup with saucer and mug
    e. Knives - dinner knife
    f. Forks - dinner fork and salad fork
    g. Spoons - soup spoon and teaspoons
    h. Napkins

LET'S SET THE TABLE

ACTIVITY 2-C

Here's Why:

The student will be able to properly place a setting on the table.

Here's What You'll Need:

For each student you need one place setting consisting of the following:
1. 1 dinner plate
2. 1 cup and saucer
3. 1 tumbler
4. 1 dinner fork
5. 1 dinner knife
6. 1 teaspoon
7. 1 napkin

Have You Done This Yet?

1. Activity 1-C.

Here's How To Do It:

1. Give each student the utensils for one place setting and have him arrange them properly.
2. Using the prepared transparencies, show the students where each utensil goes and why it is placed there. (Use the following order. This is for a dinner meal.)
   Dinner plate, about 1" in from edge of table. Center of place.
   Knife, to right of plate - sharp edge towards plate. Bottom of knife even with bottom of plate.
   Dinner fork - to left of plate bottom, even with bottom of plate. (Reason: cut meat with knife in right; fork in left. First thing you do when you sit down to eat is cut a piece of meat.)
   Napkin - to left of fork.
   Glass or cup - above knife, if both are used - the cup goes to the right of the spoon.
   Salad plate (if needed) - directly above fork on left side.

Don't:

1. Use breakable dishes.

The Following Publications Were Utilized In Preparing This Unit:

1. Tablesetting for Everyone, Biddle, Blom, 642 Meal Management, Kinder, Faye.
2. Transparencies, Table Setting 643.

I'M HUNGRY

ACTIVITY 3-C

Here's Why:

The student will be able to prepare a luncheon consisting of a salad, sandwich and a beverage. This will include setting the table, preparing, serving and eating the lunch and cleaning the kitchen and dining area.

Here's What You'll Need:

1. Salad:
   Lettuce
   Choose an assortment from following items: amounts will depend on number of different items chosen. Each group of students will use lettuce plus two other ingredients from list. (Amounts are for group salad, not individual.) Each group may have a different salad.
   a. Radishes - thinly sliced 1/3 per salad
   b. Cucumber slices - 1/3 per salad
   c. Chopped onion - 1/8 per salad
   d. Cauliflowerets - 3 per salad
   e. Celery curls - 1 stalk per salad
   f. Green or ripe olive - sliced 5 per salad
   g. Cooked or canned vegetables - 1/3 cup per salad
   h. Grated cheese - Swiss, Bleu, Cheddar, Permesan - 2 commercial slices per salad
   i. Slices hard-cooked egg - 2 eggs per salad
   j. Pickles - diced - 5 slices per salad
   k. Carrots - sliced - 1 medium per salad
   l. Tomatoes - 1 medium per salad
2. Salad dressing:
   Choose three salad dressings: try to have at least 2 uncommon ones.
3. Sandwiches: (For 24 sandwiches)
   Bread: 3-1½ lb. loaves regular slices (2 if thinly sliced)
   Margarine: ½ lb., let soften at room temperature or use whipped margarine
   Cold cuts: 2 lbs. or 24 slices; salami, bologna, etc.
   Packaged pre-sliced cheese: 1½ lbs. or 24 slices
   Lettuce: 2 medium heads
   Dressing: 1 pint mayonnaise or whipped salad dressing
4. Kool-Aid: 1 2-quart package per 2 groups
5. 1 place setting for each student: 1 dinner plate, 1 fork, 1 spoon, 1 knife, 1 glass, 1 napkin
6. For each group consisting of 3 students: 1 1½ quart serving bowl (for salad)
7. 1 dinner plate for sandwiches, 2 paring knives, 1 table knife

Have You Done This Yet?

1. Activity 2-A
2. Activity 2-B

Here's How To Do It:

1. Divide class into groups of three.
2. Give each group the makings for 3 sandwiches and 1 group salad to serve three. Therefore, each group will need:
   6 slices of bread
   3 teaspoons of margarine
   3 slices of meat
   3 slices of cheese
   3 lettuce leaves
   3 tablespoons salad dressing
   ½ head of lettuce
   2 salad items from list (e.g., 3 radishes, 1 celery stalk)
3. Demonstrate the cleaning and cutting of each vegetable purchased for the salad.
   a. Eggs and vegetables should be cooked beforehand.
   b. This can be done with individual groups or with the class as a whole.
4. Demonstrate the cleaning and tearing of lettuce to entire classroom.
5. Combine salad ingredients and toss. Let each student add his own salad dressing at the table.
6. Making sandwiches.
   a. Take 2 pieces of bread and open them like a book.
   b. Lightly butter one and spread the other with mayonnaise.
   c. On buttered slice place cold cut and cheese, one on top of another.
   d. On mayonnaise slice place lettuce leaf - folding it if need be to fit the bread.
   e. Put the two slices together.
   f. Cut the sandwich into two halves by cutting from corner to corner diagonally.
   g. May need to put toothpicks in to keep the sandwich from toppling.
   h. Arrange sandwich halves on plate.
7. Put sandwich platter and salad bowl on table.
8. Students sit down to dine.
   a. Napkin on lap.
   b. Hold fork as they would a pencil.
9. Beverage - Kool-aid.
   a. According to instructions.
   b. Place in pitcher on table or pour into glasses.
   c. One student from every 2 groups prepare the Kool-Aid.

The Following Publications Were Utilized In Preparing This Unit:

1. Betty Crocker, The New Dinner for Two Cookbooks, Golden Press, New York, 1964. p. 140.
2. Seventeen Magazine: The Seventeen Cookbook, MacMillan Co., New York, 1964, p. 391.

SPIC & SPAN

ACTIVITY 4-C

Here's Why:

The student will clean the kitchen after he has made lunch.

Here's What You'll Need:

1. 1 place setting (see Activity 1-C) for demonstration
2. may want assortment of dishes and actually wash dishes while they watch
3. 2 sinks
4. drain board
5. dish cloth
6. dish towel
7. scouring pad
8. soap

Here's How To Do It:

1. Collecting the dishes.
2. Running the water.
3. Order of dishes to be washed.
4. Wiping off table, counters, range.
5. Washing, rinsing and drying.
6. Storing the dishes.
7. Sweeping the floor.
8. Empty the garbage

Don't:

1. Let students put entire hand in glass to wash.
2. Soak wood-handled utensils.
3. Plunge hot glassware into cold water or vice versa.
4. Allow heating units in electric appliances to become wet unless item is "completely immersible". (Will be stated on the bottom of the article.)
5. Crowd your sink or dishpan with glassware or fragile china when washing dishes.
6. Allow leftover food or liquids to get into the dishwater.

Here's Where You Might Find More Information:

1. Barclay and Champion, Teen Guide to Homemaking, McGraw-Hill Co., New York, 1967, pp. 349-352.

HOW MUCH DO I NEED?

ACTIVITY 1-D

Here's Why:

The student will be able to properly measure ingredients in preparing a recipe.

Here's What You'll Need:

1. For dry ingredients, sets of cups with:
   a. 1 cup
   b. 1/2 cup
   c. 1/3 cup
   d. 1/4 cup
2. Individual measuring spoons in sets with:
   a. 1 tablespoon
   b. 1 teaspoon
   c. 1/2 teaspoon
   d. 1/4 teaspoon
   e. 1/8 teaspoon (sometimes but not usually)
3. Glass cups with pour spouts and marked for liquid levels:
   a. a "1 cup" measure from the dry measure equals a "1 cup" measure from the liquid measure. However, it is difficult to move the dry measure when completely full. But the liquid measure has sides that extend above the "1 cup" line.

Here's How To Do It:

1. Liquids - place standard glass measuring cup on flat surface. Place body so that cup is at eye level to read the desired mark.
2. Dry ingredients - pile lightly into measuring cup with spoon. Do not shake cup. Level with straight edge of spatula, knife, etc.
3. Measuring spoons - used for small amounts of liquid or dry foods. Dip spoon into dry ingredient and level with straight edge. Do not pour or level ingredients over a bowl of another ingredient (to prevent spills getting into mixture). Liquids are poured into measuring spoon until the liquid fills the spoon entirely.

The Following Publications Were Utilized In Preparing This Unit:

1. Better Homes & Gardens New Cook Book, Meredith Press, New York, 1968, p. 330.

LET'S FLIP THE GREENS!

ACTIVITY 2-D

Here's Why:

The student will be able to prepare the vegetables for his salad.

Here's What You'll Need:

Fresh vegetables that will be used in the salads in Activity 3-C.

Here's How To Do It:

1. All salad ingredients should be washed and shaked. (This keeps the salad ingredients crisp and enables the salad dressing to cling to their surfaces better.)
2. Whenever possible, use the natural color and shape of the vegetables.

Individual salad ingredients.

Thinly sliced radishes - The radishes should be cleaned by putting in cold water and gently removing the dirt with the hands. Remove-bruised spots with a paring knife. Remove the tops at the very base of the tops. You now should have a red ball with the ends cut off - showing white ends. Continue slicing radish so that you have white slices with a rim of red on the outside border of the slice.

Cucumber slices - Clean cucumbers by washing in cold water. Slice widthwise so that you have several round slices. (Leave the peeling on to add additional color to the salad.)

Chopped onion - Remove the brittle, goldish color skins from the onion. Cut out a section and chop or dice the onion. (Do not wash the onion as this removes the flavor.)

Cut fresh green beans - Wash the beans in cold water if freshly picked. If canned or frozen, they need to cook and then cool overnight. Chop into size of peas but do not mutilate bits.

Caulifloweret s - Wash cauliflower head by running under water and shaking the excess water off. Break into flowerets. The floweret is each individual flower in the "bouquet".

Freshly shelled green peas - These should be gently cleaned in cold water. Put the peas in the salad whole. If canned or frozen, they need to be cooked and then cooled overnight.

Celery curls - Remove the stalks of celery from the large stalk. Wash with cold water and gently scrub with vegetable brush to remove dirt. To remove bruised spots, use a paring knife. With celery stalks lying on cutting board, slice celery.

Green or ripe olives - Slice olives so that you end up with small circles that are hollow in the middle.

Shredded or grated cheese - Use a grater to grate cheese.

Julienne strips of meat or poultry - Use cold meat or poultry. Cut in lengthwise strips about 1/2" wide.

Sliced hard-cooked eggs - (Eggs should be already cooked and shelled. See Activity 4-B) Slice egg so that you have a circle of white with the egg yolk in the middle.
Pickles - Can be chopped into bits the size of peas, or you could slice a dill pickle to be bread and butter pickles. The method you choose will depend on the size you wish to have the pickles.
Sliced carrots - Scrape the peel off the carrot with a knife. Do not peel. Slice into circles.

The Following Publications Were Utilized In Preparing This Unit:

1. Peckham, Gladys C., Foundations of Food Preparation, MacMillan Co., New York, 1968, p. 202.
2. Better Homes & Gardens New Cook Book, Meredith Press, New York, 1968, p. 315.

LET'S BAKE IT IN A POT

ACTIVITY 3-D

Here's Why:

The student will be able to properly prepare a casserole that requires only baking.

Have You Done This Yet?

1. Activity 1-D
2. Activity 4-C and 2-C

Here's What You'll Need:

1. the ingredients listed with the recipes
2. measuring spoons
3. liquid and dry measuring cups
4. 1 place setting per student
5. serving spoons
6. Kool-Aide

Here's How To Do It:

1. Divide class into seven groups.
2. Assign each recipe to a group.
3. Give each group the ingredients.
4. Assign the time each casserole should be placed in the oven so all casseroles are done at the same time.
5. Arrange a buffet with the casseroles and utensils for eating.

CHOPSTICK TUNE RECIPE

1 10½ oz. can condensed cream of mushroom soup
2 C. chow mein noodles
1 6½ or 7-oz. can tune, drained and flaked
1 C. sliced celery
½ C. toasted cashews
½ C. chopped onion

Oven 375°

Combine soup and ½ cup water. Add 1 cup of the chow mein noodles, dash pepper and remaining ingredients; toss lightly. Turn into 10x6x1½ inch baking dish. Sprinkle remaining noodles atop. Bake at 375° for 30 minutes. Serves 4 or 5.

SOUTH LOUISIANA RICE

½ stick margarine
1 C. rice
1 can consomme
1 consomme can water
1 tsp. salt
2 tbsp. chopped parsley
2 tbsp. diced celery
2 tbsp. minced onion
1 C. mushrooms
1/8 tsp. pepper
1/8 tsp. red pepper

Preheat oven to 275°. Melt margarine; add rice. (Margarine can just melt at room temperature.) Place in 12x10 inch baking dish; stir in remaining ingredients. Bake for 50 minutes. Stir, bake for 10 minutes longer. Yield 6-8 servings.

SCALLOPED CLAM CASSEROLE

1 C. cracker crumbs
2 C. milk
1 egg, slightly beaten
1 tsp. grated onion
1/8 tsp. pepper
1 can minced clams

Combine cracker crumbs and milk; stir in remaining ingredients. Place in greased 1½ quart casserole. Bake for 30 to 40 minutes at 350°. Yields 4-6 servings.

HAM AND EGG SUPPER

1 can whole kernel corn
milk
12 oz. can luncheon meat
2 C. shredded sharp processed cheese
3 slightly beaten eggs
1 C. fine cracker crumbs

Drain corn, reserving liquid. Add enough milk to corn liquid to make 1¼ cups. Chop luncheon meat fine; mix all ingredients together well. Place in greased 10x6x1½ inch baking dish. Bake at 350° for 40 to 45 minutes or until set. Yield: 6 servings.

TUNA AND CHIPS CASSEROLE

2 cans (10½ oz. each) cream of mushroom soup
1 C. milk
2 cans (7 oz. each) tuna, drained and flaked
2½ C. crushed potato chips
2 C. (1 lb. can) cooked green peas, drained

Heat oven to 350° (mod). Empty soup into 2-qt. baking dish. Add milk and mix well. Add tuna, 2 cups potato chips, and peas; mix lightly. Sprinkle remaining potato chips over top. Bake 25 min. until heated through. Yields 6-8 servings.

FULL O'BOLONEY

1½ C. cubed raw potatoes (about 12 potatoes)
1½ C. cubed bologna (about ½ lb.)
2 tbsp. minced green pepper
1 can (10½ oz.) cream of celery soup, without water
2 large slices cheese, quartered

Heat oven to 350° (mod). Mix all ingredients except cheese in 1½ qt. baking dish. Bake covered 1 hour 15 minutes. Remove cover; top with cheese. Broil until bubbly and browned. Yield: 4 servings.

PRIZE WINNING MEAT LOAF

1½ lb. ground beef
3/4 C. Quick Quaker Oats, uncooked
½ C. chopped onion
1½ tsp. salt
½ tsp. pepper
1 C. tomato juice
1 egg, beaten

Combine all ingredients. Pack firmly into an ungreased 8½x4½x2½ inch loaf pan. Bake in a preheated moderate oven (350°) 1 hour and 15 minutes. Let stand 5 minutes before slicing. Makes 8 servings.

The Following Publications Were Utilized in Preparing This Unit:

1. Betty Crocker's New Dinner for Two Cookbook, Golden Press, New York, 1964, pp. 56, 74, and 10c (F.B.H.S. Library 641.5 Gen).
2. Better Homes and Gardens New Cook Book, Meredith Press, New York, 1968, p. 134.
3. The Home Economics Teachers Cookbook, Favorite Recipes Press, Montgomery, Alabama, 1970, pp. 199, 204, 220.

EARLY TO RISE

ACTIVITY 1-E

Here's Why:

The student will be able to prepare a breakfast of eggs and pancakes.

Here's What You'll Need:

1. 6 eggs per group of 3 students
2. 2 slices of bread per student
3. for each group of three students:
    a. 1/3 C. milk
    b. ¼ to ⅓ tsp. salt
    c. 2 tbsp. margarine
    d. 1 fry pan
    e. 2 saucepans
4. one for two groups of three students:
    a. 1 griddle or electric skillet
    b. 1 small Pillsbury Pancake mix
    c. milk and eggs necessary to make 2 pancakes per student
5. 2 cubes of margarine
6. small bottle of syrup
7. small jar of jam or jelly
8. 1 slotted spoon per group of 3

Have You Done This Yet?

1. Activity 2-C and 4-C
2. Activity 2-E

Here's How To Do It:

A. Hard & Soft Cooked Eggs:
    1. Place eggs in saucepan and cover with cold water, at least 1" above eggs; rapidly bring to boiling. For soft-cooked eggs: Cover pan tightly and remove from heat. Leave eggs in water 2 to 4 minutes. For more than four eggs, don't turn off heat, but cook, covered, just below simmering for 4 to 6 minutes. Promptly cool in cold water. Crack in half with knife, spoon out egg and serve on toast. For hard-cooked eggs: When water boils, reduce heat at once to keep water just below simmering. Cover and cook eggs for 15 to 20 minutes. Cool immediately in cold water to prevent yolk darkening. To shell hard-cooked eggs, crack shell, then roll gently between palms of hands to loosen. Start to peel from large end.

B. Scrambled Eggs:

    3 eggs, 1/6 C. milk, dash salt, 1 tbsp. margarine or shortening.

    Beat eggs, milk, salt, and dash pepper in an air-tight cover by shaking. (Mix slightly for eggs with streaks of yellow and white; mix well for a uniform yellow.) Heat margarine or shortening in skillet until just hot enough to make a drop of water sizzle. Pour in egg mixture. Turn heat low. Don't disturb mixture until it starts to set on bottom and sides, then lift and fold over with side spatula so uncooked part goes to bottom. Avoid breaking eggs any more than necessary. Continue cooking, 5 to 8 minutes until eggs are cooked throughout, but still glossy and moist. Remove from heat immediately.

C. Poached Eggs:

Add water to a saucepan to depth of 3 to 4 inches; bring to boil. Stir simmering water to make a swirl, and slip egg from sauce dish into middle of the swirl. (Be sure to follow the motion of the swirl with saucedish so egg goes into water in same direction.) Reduce heat to low and cook egg for 3 to 5 minutes. Remove egg from water with slotted spoon. Serve on buttered toast.

D. Pancakes:

Prepare batter according to instructions on package. There should be enough for each student to have two pancakes, 3" in diameter.

1. Stir pancake batter quickly until dry ingredients are moistened. (Batter will be lumpy.)
2. Dip pancake batter with a ¼ cup measure.
3. Test heat of griddle by sprinkling with water. If drops dance, heat is just right. Use electric skillet or griddle for perfect heat control.
4. When upperside of pancakes are bubbly, a few bubbles have burst, and edges begin to appear dry, cakes are ready to turn. A quick flip with a broad spatula makes the job easy.

E. Fried Eggs: (optional for advanced students)

In a skillet, melt a small amount of margarine or shortening. Crack eggs into small dish and gently pour into pan. Season with salt and pepper. When the whites are set and edges cooked, add ½ tsp. water per egg. Cover skillet and cook eggs as desired. (The water should be added all at once and covered quickly to make use of the steam that is formed by the water.)

WHAT MAKES IT TICK

ACTIVITY 2-E

Here's Why:

The student will be able to properly operate the cooking range.

Here's What You'll Need:

1. cooking range

Here's How To Do It:

1. Controls for burners.
   LF - Left front
   LR - Left rear
   RF - Right front
   RR - Right rear
2. Controls for oven(s).
   Sometimes just one for one oven.
   Sometimes a second one with preheat, bake, broil, etc.
   Preheat - used to heat oven quickly. Usually a light will come on to indicate the oven is at the temperature you set.
   Bake - switch the dial over to bake when you put the food in the oven.
   Broil - used for direct heat when you cook something about 3"-6" away from the heat source.
3. Electric vs. gas stoves.
   Electric takes longer to heat and cool. When turned off it still could be hot.
   Gas can be very dangerous because occasionally the gas will not light, which could lead to an explosion. Therefore, when using a gas stove, always have an adult present to light the stove. Unlike the electric stove, when you turn it off, you immediately turn off the heat.

Don't:

1. Be too specific because each student will have a different stove at home and you may confuse them.

Here's Where You Might Find More Information:

1. Check in the operator's manual of the stove you are going to use.

POTPOURRI

ACTIVITY 1-F

Here's Why:

The student will be able to prepare foods from other countries.

Here's What You'll Need:

The ingredients and baking dishes needed are included in the recipes that follow.

Have You Done This Yet?

1. Activity 2-C
2. Activity 4-C
3. Activity 1-D
4. Activity 2-E

Here's How To Do It:

1. Divide the class into groups of 3.
2. Assign a recipe to each group.
3. Give each group the ingredients needed for the recipe but do not measure the ingredients for them.
4. Give each group the time that their dish should be placed in the oven to insure that all dishes are ready at the same time.
5. While the food is cooking, the students should discuss what they are making, what country it represents, and how they made it.
6. After the dishes have been removed from the ovens (by the student with supervision) they should be placed on a buffet table. Each student will taste of each. (The recipes should be given to all students.)
7. The student will set the table in its entirety except for the dinner plate.
8. The students will clean the kitchens and dining areas.

The Following Publications Were Utilized In Preparing This Unit:

1. Favorite Recipes of Home Economics Teachers - Foreign Foods Edition, Favorite Recipes Press, Inc., Montgomery, Alabama, 1967, pp. 41, 227, 250, 267, 284, 319, 356, 367, 374.

TACOS - Mexico

1 lb. ground beef
½ tsp. salt
1 tsp. garlic salt
1/8 tsp. pepper
½ C. oil
grated cheese
lettuce, cut fine
chili sauce
4 taco shells

Yield: 4 servings

Brown ground beef in salt; add garlic salt and pepper. After browning, cook 10 to 15 minutes at low heat. Remove from fat; press on paper towel to absorb excess fat. Serve with grated cheese, lettuce and chili sauce.

CHOP SUEY - China

½ C. butter
1 C. finely chopped onion
1 tsp. salt
2 C. chopped celery
½ C. chopped green pepper
dash of pepper
1 ½ C. hot water
1 can Chinese vegetables, drained
2 C. cooked beef, or chicken, cut in strips
2 tbsp. cold water
2 tbsp. cornstarch
1 tbsp. soy sauce
1 tsp. sugar

One of the following:
4 servings of rice for chop suey
4 servings of Chinese noodles for chow mein

Yield: 4 servings

Melt butter in hot skillet. Add onion and fry 3 minutes. Add salt, celery, green pepper, pepper, and hot water. Cover and cook for 5 minutes. Add vegetables and meat. Mix thoroughly and cook 5 minutes. Combine remaining ingredients and add to first mixture of vegetables and meat. Stir and cook 1 minute. Serve hot with rice for chop suey or with fried noodles for chow mein.

HAWAIIAN SWEET AND SOUR SPARERIBS

2 lbs. ribs
2 large onions, cut in quarters
2 strips of diced bacon
1 small can chunk pineapple, drained
2 sliced green peppers
½ C. brown sugar
½ C. vinegar
2 tbsp. soy sauce
2 tbsp. cornstarch
2 tbsp. water
4 servings of rice

Yield: 4 servings

Brown spareribs, onion and bacon together in large pot. Add juice from pineapply; cover. Simmer 40 minutes. Add pineapple chunks, green pepper, brown sugar, vinegar, soy sauce, cornstarch and water. Cook 20 minutes. Serve over rice.

STROGANOFF - Russia

1 lb. round steak, cubed
flour
2 tbsp. fat
½ C. chopped onion
1 clove garlic, minced (opt.)
1 6-oz. can mushroom bits and pieces
1 tbsp. Worcestershire sauce
6 drips of Tabasco sauce
½ tsp. salt
½ tsp. pepper
1 C. sour cream

Yield: 6 servings
About 6 servings or 5-6 cups of one of the following: rice, noodles, spaghetti, mashed potatoes

Dip meat in flour. Brown in fat. Add onion, garlic, mushrooms and liquid. Add remaining ingredients except sour cream. Simmer 1 hour or until meat is tender. Add sour cream. Can be served over rice, noodles, spaghetti or mashed potatoes. Rice or noodles are recommended.

SWEDISH MEATBALLS - Sweden

1 lb. finely ground beef
½ C. fine dry bread crumbs
1 egg
2/3 C. milk
2 tbsp. grated onion
1 tsp. salt
1/8 tsp. pepper
1/8 tsp. nutmeg
1/3 C. flour
1 qt. cold water

Yield: 4 servings
Should have mashed potatoes or rice to serve with the meatballs. About 4 servings of either one would be enough.

Mix all ingredients except flour and water together lightly and gently form into 1½-inch balls. Brown in hot fat. Remove meatballs from pan. Brown flour in the remaining fat. Add cold water to browned flour. Cook until thickened, stirring constantly. Add meatballs. Simmer 20 minutes.

AROZ ESPANOL - Spanish Rice

1 lb. ground chuck
1 sm. onion, minced
Dash of Accent
1 tsp. salt
Dash of pepper
2 tbsp. chopped bell pepper
½ C. catsup
1 can tomato sauce
½ C. water
3/4 C. rice

Yield: 4 servings

Cook fat out of meat in skillet. Drain, add onion, Accent, salt, pepper and bell pepper. Mix well. Add catsup, tomato sauce and water. Add rice and mix. Bring to boil and reduce heat to simmer. Cover and cook for 30 minutes.

KIMA - Pakistan

1 C. chopped onion
1 clove of garlic, minced
3 tbsp. butter or margarine
1 lb. ground beef
1 tbsp. curry powder
1½ tsp. salt
Dash of pepper
2 tomatoes, diced
2 potatoes, diced
1 pkg. frozen peas (small package)
flaked coconut
Rice (6 servings)

Yield: 6 servings

Preheat electric fry pan to 360°. Cook onion and garlic in butter until tender. Add ground beef and brown well. Stir in curry powder, salt, pepper, potatoes and peas. Cover. Simmer at 250° for 25 minutes. Sprinkle with flaked coconut. Serve with fluffy rice.

SICILIAN SUPPER - Sicily

1 lb. ground beef
½ C. chopped onion
1 6-oz. can tomato paste
3/4 C. water
1½ tsp. salt
pepper
¼ tsp. butter
3/4 C. milk
8 oz. cream cheese
½ C. grated Parmesan cheese
¼ C. chopped green pepper
2 C. egg noodles, cooked

Yield: 6 servings

Brown meat. Add onion, cook until tender. Add tomato paste, water, salt and pepper; simmer for 5 minutes. Heat milk and cream cheese; blend well. Stir in ½ cup Parmesan cheese, green pepper and noodles. In casserole, alternate layers of noodle and meat sauce. Bake at 350° for 20 minutes. Sprinkle on remaining cheese.

SLOVENIAN GOULASH - SLOVE ACKI GULAS - Yugoslavia

1 lb. lean beef
1 lb. lean veal
1 large onion, chopped
3 tbsp. fat
1 tsp. salt
1 tsp. paprika
1 C. strained tomatoes
8 small potatoes

Yield: 6 servings

Cut meats in cubes and brown with onion in fat, stirring occasionally, to brown evenly. Add seasonings and tomatoes. Simmer for 1 hour, adding potatoes after 30 minutes of cooking. Add more tomatoes, if necessary.

BAKING IN THE BREEZE

ACTIVITY 1-G

Here's Why:

The student will be able to prepare his meals during the outdoor living course.

Here's What You'll Need:

Necessary food and equipment are included with each menu.

Here's How To Do It:

1. Divide the class into three groups and give each a name or let them select their name. For simplicity, they will be referred to as Groups #1, #2, #3.
Dinner - #1 Cooks
#2 clean up
Breakfast - #3 Cooks
#1 clean up
Lunch - #2 Cooks
# 3 clean up

Dinner:

Meat loaf
Corn-on-the-cob
Baked potato
Milk
Coffee

Fire should be hot, white coals.

Corn-on-the-cob and baked potatoes.
The baked potatoes should be small and have 2 per student.
Use heavy duty foil to wrap the corn and potatoes. They should be wrapped separately. Bury both in hot coals.

Meat Loaf - one pound per three students and one pound for two adults. With the one pound of ground beef, mix one egg and ¼ cup chopped onion. Salt and pepper to taste. Divide this mixture into three equal portions. Wrap each portion in heavy duty foil and bury in hot coals.

Breakfast:

French toast (syrup and butter)
Bacon

Cocoa for students
Coffee for adults
Griddle
Fry pan
French Toast - allow about 3 slices of toast per person

Use day-old bread.
Combine: (enough for 4 to 6 slices of bread)
- 2 slightly beaten eggs
- ½ C. milk
- ¼ tsp. salt

Dip bread into mixture to coat each side. Do not soak the bread in the mixture. Put on griddle and turn when bottom side is golden brown.

BACON

Place individual slices on griddle. Cook as desired.

COCOA per person

- 1 tsp. cocoa
- 2 tsp. sugar
- 1 C. milk, or equivalent:
  - ½ C. evaporated milk and ½ C. water
  - or
  - 4 T. milk powder and 1 cup water
- A little extra water

Mix cocoa and sugar with water in kettle, and cook to a smooth paste, letting it bubble vigorously. Add milk and stir all thoroughly together. Heat almost to a boil. Some add a pinch of salt. Beating with a whip prevents any film from forming.

COFFEE per person

1 C. water per person
1 heaping tbsp. coffee (regular grind)
1 extra tbsp. coffee for every 10 cups (1 lb. makes 45 cups)
Coffee pot
Bag of cheesecloth and string

Cold water coffee: Put coffee in bag, place bag in the water in pot, put on fire and bring to a boil. Boil 3 minutes for ordinary strength, longer for stronger. Remove bag. keep hot. The bag makes it easier to clean pot. Make certain the bag is large enough to allow coffee to expand. A large square of cheesecloth caught up at the corner does just as well as a bag.

LUNCH:

Hot dogs (on a stick)
Potato chips
Celery and carrot sticks
Some-mores for dessert

HOT DOGS

Weiners and hot dog buns. About 2½ per person.
Potato chips
Celery and carrot sticks (About 1 whole carrot and 1 stalk of celery per student)
Catsup and Mustard
Other finger foods as desired, such as pickles, olives, etc.
The cook group will prepare the celery and carrot sticks and butter the hot dog buns.

Each student roasts his own hot dog by placing it on a stick or clothes hanger. After doing this, he dishes his own food from the table.

SOME-MORES (Serves about 8)

16 marshmallows (about ½ lb.)
32 graham crackers (about 1 large pkg.)
6-5 cent chocolate bars, the flat kind without nuts (break in thirds)
Sticks for toasting - use the same ones used for hot dogs.

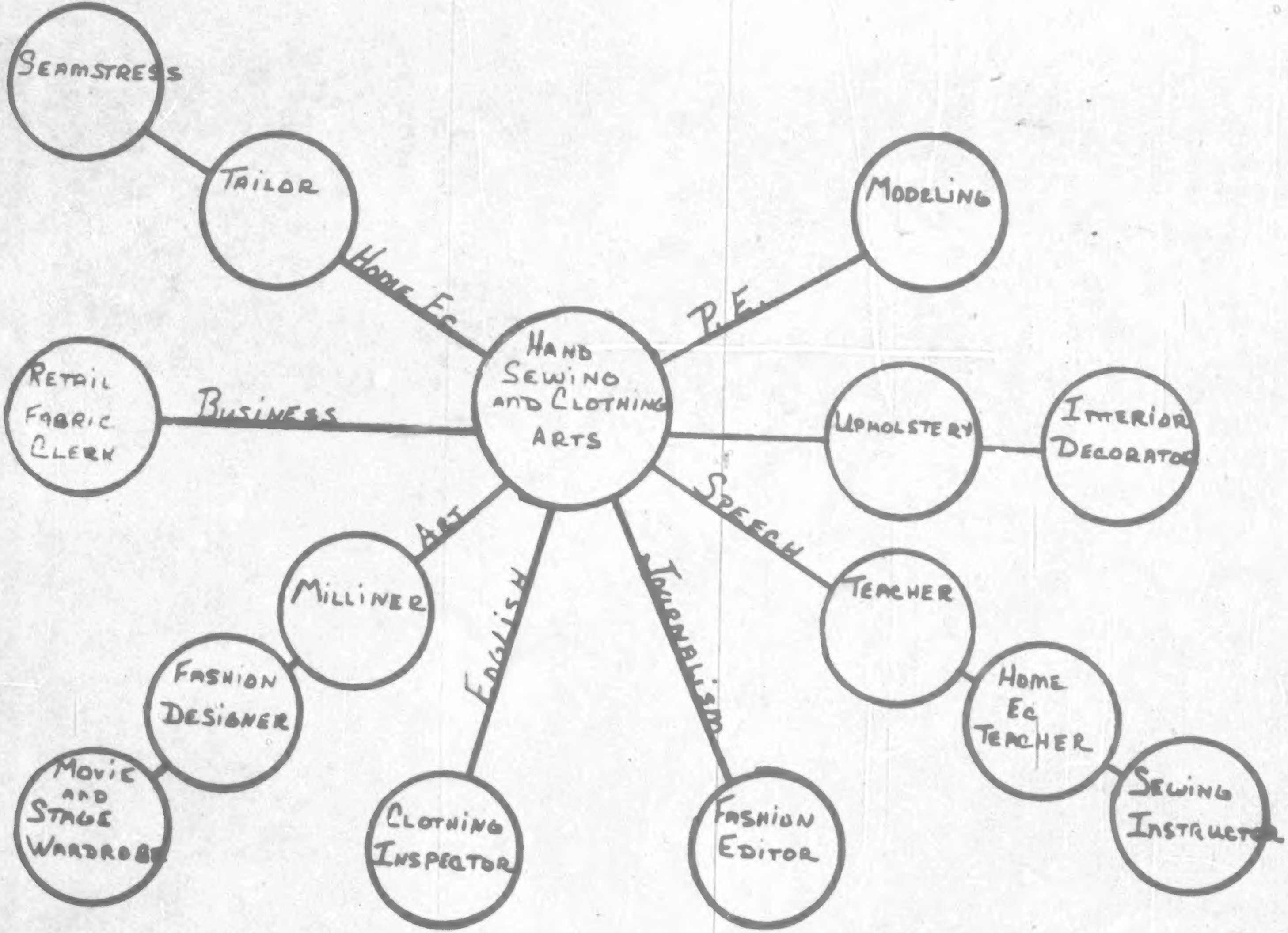
Make a sandwich with a piece of chocolate and two crackers. Toast a marshmallow golden brown, and well puffed. (SLOWLY over coals does it!) Pop into the sandwich; press gently together, and eat.

Don't:

Allow the chaperones to prepare the meals or clean. This is part of camping out.

The Following Publications Were Utilized In Preparing This Unit:

1. Hammett, Catherine T., Your Own Book of Campcraft, Pocket Books, Inc., New York, 1958, pp. 82, 83, and 88.



Hand Sewing and Clothing Arts—related curriculum areas and occupations.

HAND SEWING AND CLOTHING ARTS

Activity No.	Title	Activity
1-A	Getting to Know the Sewing Machine	Instructional
2-A	Making a Pack	Using the sewing machine
3-A	In the Beginning	Threading a hand needle
4-A	Hemming	Simple clothes repairs
5-A	Sewing on a Button	Clothes repair

Activity No.	Cost/Student	Grade
1-A	.00	5
2-A	less than 1.00	5
3-A	less than .05	5
4-A	.00	5
5-A	.00	5

GETTING TO KNOW THE SEWING MACHINE

ACTIVITY 1-A

Here's Why:

The student will be able to operate the basic mechanics of the sewing machine.

Here's What You'll Need:

1. sewing machine

*Here's How to Do It:

1. Explain to the students how the electricity gets from the outlet to the motor in the sewing machine.
2. Explain the foot or knee control and how it acts as a control on the motor.
3. Show the students how to wind a bobbin.
4. Show the students how to thread the machine and to locate the chart in the instruction booklet. Encourage the student to have this booklet handy so he may use it when he is threading the machine.
5. Point out the following controls:
    a. Stitch length regulator
    b. Seam guide
    c. Reverse
6. Give each student a piece of scrap material to practice sewing a straight line. Allow ½ hour for the maximum.

Don't:

1. Go into much detail.

Here's Where You Might Find More Information:

Refer to the operator's manual for further instruction.
NOTE: Sixth grade was approved for this project. However, because the students will be making a pack for hiking, their bike, or whatever, it will be advantageous to have this mini-course before the Outdoor Living mini-course.

*We suggest a qualified instructor and possibly one student aide for each student.

MAKING A PACK

ACTIVITY 2-A

Here's Why:

To acquaint the student with the sewing machine so he may sew some of his clothes or mend.

Here's What You'll Need:

1. sturdy material for a finished pack one foot square
2. 1/8"-1/4" wide elastic 2 inches long
3. matching thread

*Here's How To Do It:

1. For measurements of material, refer to diagram 1.
2. With like sides together, fold (a) over (b) along dotted line. Keep in mind you are folding over 14½ inches (1 inch for the hem).
3. Line up the raw edges so that they are even.
4. Fold down 1 inch for the hem. (This will be wrong sides together.)
5. With a row of stitching 4/8" (1/2") from the raw edge, sew sections A and B together. (The hem should be turned down on Part A.) Sew over hem. Backstitch when starting and finishing a seam.
6. Turn pack so that the right sides are out.
7. With one hand inside pack, push seams out as far as possible to insure the seam is not hidden by the folds of the seam.
8. Pin the sides so that the seams are against the outside. (The seam allowance is in the middle.)
9. Sew a topstitch 4/8" from the seamed edges. Do this on both sides of the pack, left and right.
10. Add another row of topstitching 2/8" (1/4") from the seamed edge to reinforce this seam.
11. On part C, finish the raw edges along the left and right sides. To do this, fold under 1/4" and sew all the way around part (c) except where it joins part (B).
12. Fold this 1/4" under another 1/4" and sew 1/8" from the fold. This is done on the left and right sides but NOT AT THE TOP OF (C).
13. Top of (C) will be a hem of one inch. Fold down one inch and pin. This hem, as well as the hem on Part A, will be hand sewn.
14. After pinning the hem in place, mark the center with a pin.
15. Cut off a piece of elastic two inches long.
16. Form a loop with the elastic and pin it to the hem on the wrong side.
17. With the sewing machine, sew back and forth across the elastic.

*We suggest a qualified instructor and possibly one student aide for each student.

Don't:

1. Allow the supervisors to do the sewing. Encourage the students to try to go slowly so that they can handle the material. (It's easier if they watch the edge of the material rather than where the needle is actually sewing.)

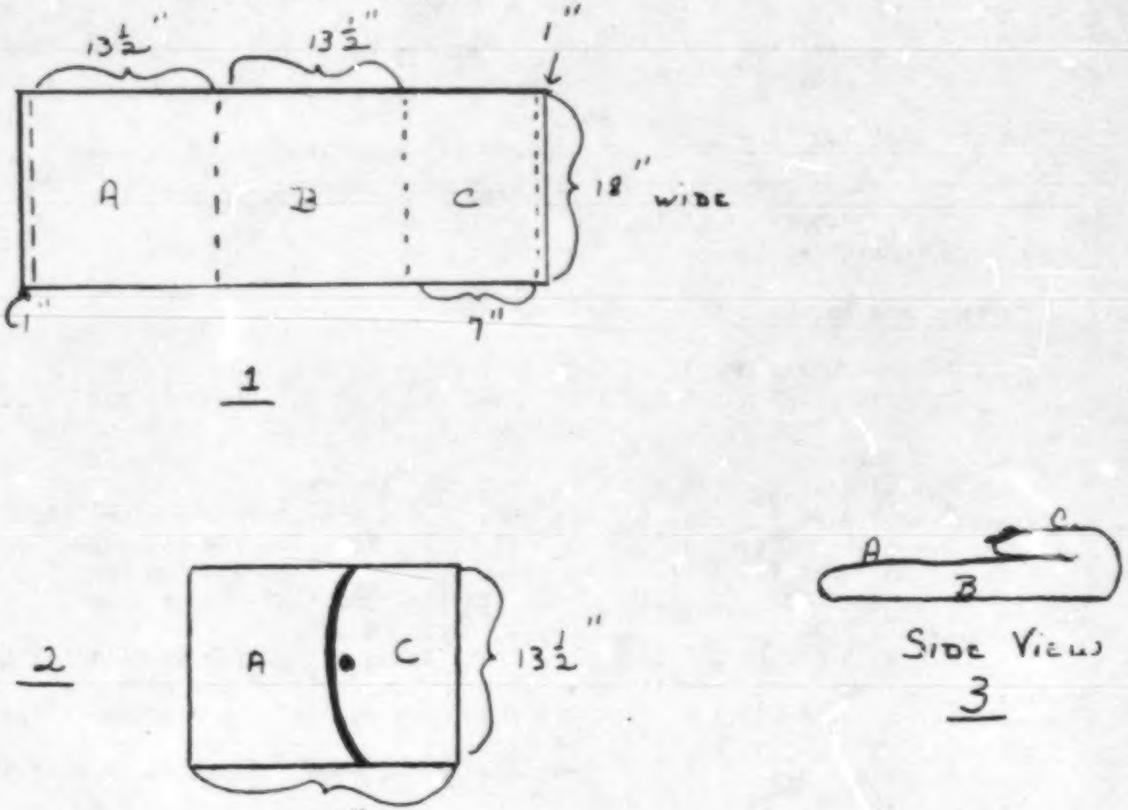


Diagram 1

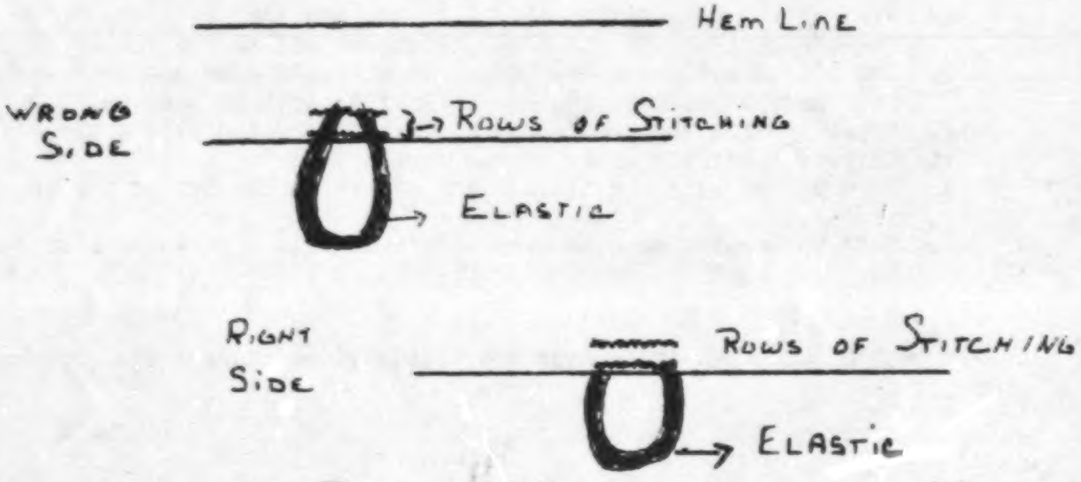


Diagram 2

IN THE BEGINNING

ACTIVITY 3-A

Here's Why:

The student will be able to properly thread the needle in preparation for hand sewing.

Here's What You'll Need:

1. thread
2. needle
3. fabric

Here's How to Do It:

1. Thread the needle.
2. To knot the thread:
    a. Holding the end of the thread between the thumb and first finger, wrap the thread around the top of the forefinger once. (This loop should overlap the end of the thread.)
    b. Twist the two threads together by sliding the thumb to the tip of the finger, all the time keeping the threads between the thumb and finger.
    c. Place the thread between the thumb and forefinger so the loop is between the fingers and the end of the thread.
    d. Move the finger and thumb to the end of the thread, making a knot.
3. To knot thread after sewing an article:
    a. With thread on wrong side of fabric, run thread under last stitch and then through loop just made and then through that loop.

HEMMING

ACTIVITY 4-A

Here's Why:

To make simple repairs of his clothing, the student will be able to do simple hemming.

Here's What You'll Need:

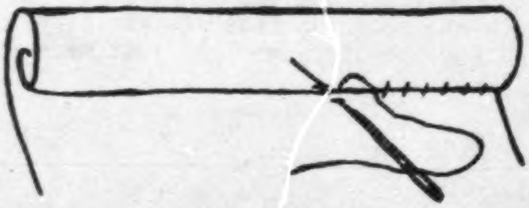
1. needle and thimble
2. thread from activity 1-B
3. pack from activity 1-B

Have You Done This Yet?

1. Activity 1-B, Making a Pack

Here's How To Do It:

1. Hold the piece of fabric over the first finger of the left hand, with the fold toward the left.
2. Use the end of the thimble to push the needle.
3. Working toward yourself, take a small stitch through the garment and through the folded edge.
4. Pull the thread through and take a second stitch a short distance from the first, about 1/2 inch.



The Following Publications Were Utilized In Preparing This Unit:

Barclay, Marion S. & Champion, Frances, Teen Guide to Homemaking, McGraw-Hill Book Company, New York, 1967, p. 114.

SEWING ON A BUTTON

ACTIVITY 5-A

Here's Why:

To make simple repairs of his clothing, the student will be able to sew on a button.

Here's What You'll Need:

1. one large button
2. needle and thimble
3. thread
4. pack from Activity 1-B

Have You Done This Yet?

1. Activity 1-B
2. Activity 1-C

Here's How To Do It:

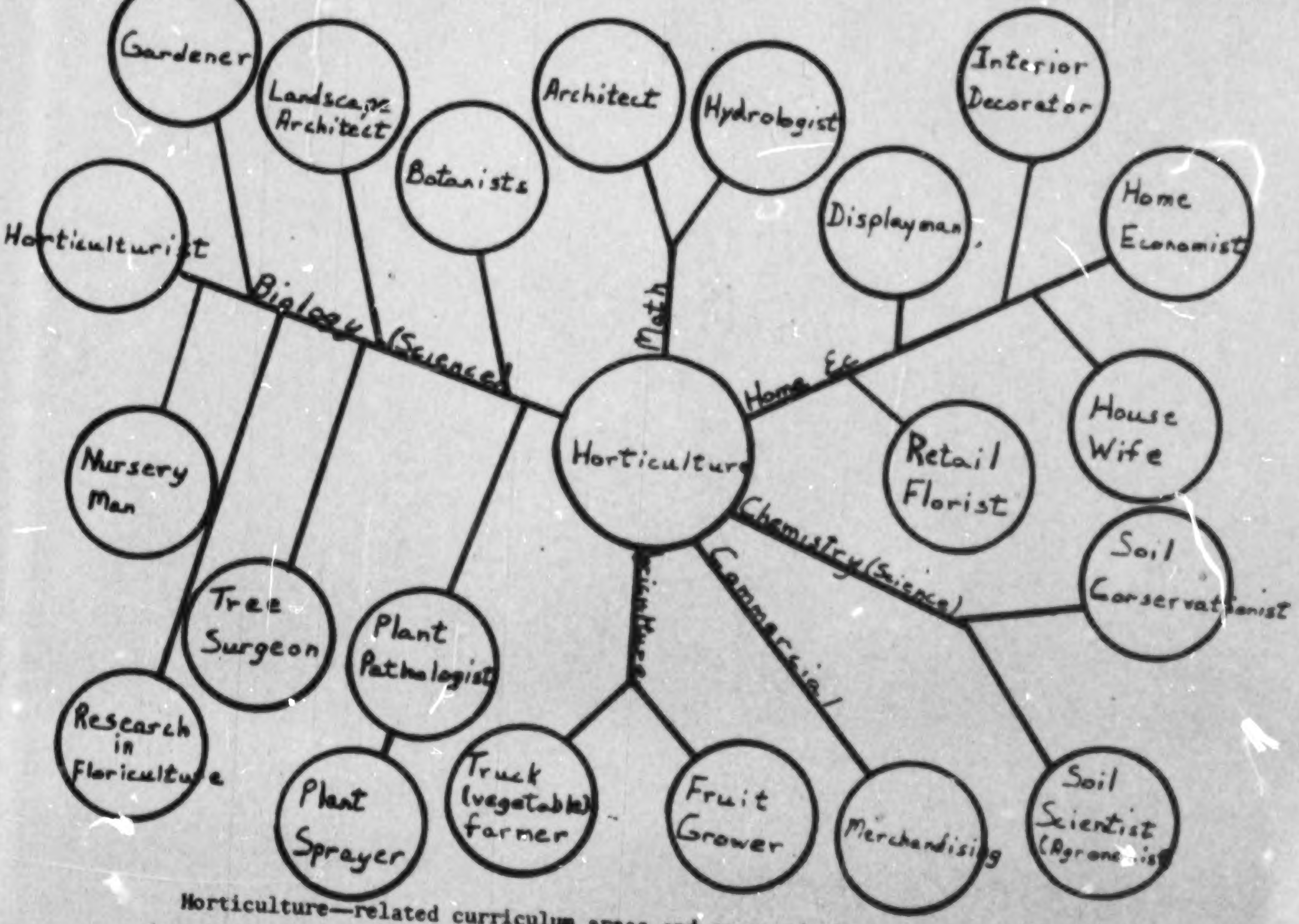
1. Using double thread, take one small stitch at the place where the button is to be sewn.
2. Hold the button in place and take several stitches through the holes and through the fabric.
3. Bring the needle and thread through the fabric to the right side.
4. Wind the thread around under the button 3-4 times.
5. Return the thread to the wrong side of the fabric and fasten it. (The reason we wind some thread around the stitches just underneath the button is to reinforce the thread so that it won't break as easily from stress.)
   For a button with a shank, take several stitches over the shank and through the fabric. Fasten.

Don't:

1. Sew the buttons on with the machine.

Here's Where You Might Find More Information:

Barclay, Marion S. & Champion, Frances, Teen Guide to Homemaking, McGraw-Hill Book Company, New York, 1967, p. 96.



Horticulture—related curriculum areas and occupations.

HORTICULTURE

Activity No.	Title	Activity
1-A	What They Will Grow Best In	Soil preparation
2-A	Making a Tool	Row marker
3-A	Build a Growing Flat	Building a flat
4-A	Making Them Grow	Germination
5-A	Let's Move Them	Seedling transplant
1-B	Let's Go Outside	Preparation of a flower bed
2-B	Fresh Air and Sunshine	Transplanting outside
3-B	They'll Be Back Again Next Year	Perennials
4-B	Your Own Fertilizer	Compost pit
1-C	Plants Behind Glass	Terrarium
2-C	Beauty Indoors	Planters
3-C	Food in a Basket	Growing vegetables indoors
1-D	Let's Plant a Tree	Tree planting
2-D	Time to Dig Up a Tree	Transplanting a tree
3-D	Some for Beauty, Some for Production	Pruning shrubs
4-D	Let the Sun Shine In	Pruning hedges
5-D	Let's Chop It Up	Pruning trees
6-D	A Helping Hand	Bracing and espaliering
1-E	New From Old	Cuttings
2-E	Let the Roots Hang Out	Air layering
3-E	It's All in a Bud's Hands	Bud grafting
4-E	Cleft Grafting	Cleft grafting

1-F	A Blanket of Green	Raising a new lawn
2-F	Kind and Care of the Carpet	Lawn care and varieties of grass
3-F	Let's Do Some Planning	Landscaping
1-G	Get Out of the Heat	Shading screen
2-G	Let Me Warm You Up	Hot bed
3-G	Reach To The Sky	Trellis
1-H	Flower Arranging	Flower arrangement
2-H	Corsages	Making corsages

Activity No.	Cost/Student	Grades
1-A	less than .25	K-6
2-A	less than .10	K-6
3-A	less than .75	4-6
4-A	less than .25	K-6
5-A	less than .25	K-6
1-B	less than .25	5 & 6
2-B	less than .10	K-6
3-B	1.00	3-6
4-B	less than .10	5 & 6
1-C	less than .50	3-6
2-C	1.00	K-6
3-C	less than .50	K-6
1-D	less than .10	3-6
2-D	less than .10	5 & 6
3-D	.00	6
4-D	.00	6
5-D	.00	6
6-D	less than .25	6
1-E	less than .50	3-6
2-E	less than .25	5-6
3-E	.00	6
4-E	.00	6
1-F	less than .25	6
2-F	less than .25	6
3-F	less than .50	6
1-G	less than .10	6
2-G	1.00	6
3-G	.50	4
1-H	1.00	5 & 6
2-H	1.00	5 & 6

INTRODUCTION

The activities for the unit in Horticulture are not recommended for a specific grade level; rather, the grade levels have been recommended on the basis of student ability. Many of the activities can not be completed in a time block of two days, and many of them will require a full year for results. Therefore, each year it will be necessary for the counselor to select activities for a given grade level on the basis of activities they have completed the previous year.

WHAT THEY WILL GROW BEST IN

ACTIVITY 1-A

Here's Why:

Each student will be able to prepare a batch of potting soil in correct proportions, suitable for growing potted plants.

Here's What You'll Need:

1. loam sand, peat moss or other organic matter
2. fertilizer
3. trowel and containers

Here's How To Do It:

1. Standard mix: 2 parts loam, 1 part sand, and 1 part peat moss.
2. Soak required amount of peat moss thoroughly before mixing.
3. Add alternate amounts of the three ingrediants in correct proportions.
4. Mix together thoroughly with use of the trowel.
5. Level pile and add liquid fertilizer over the top according to the directions on the container (5 nitrogen-10 phosphate-5 potash).
6. Remix again.
7. Wet soil mixture until in a damp condition so that it will retain its shape when squeezed.

Don't:

1. Use a clay loam.
2. Add fertilizer unless needed; if in doubt, see your greenhouse owner.

MAKING A TOOL

ACTIVITY 2-A

Here's Why:

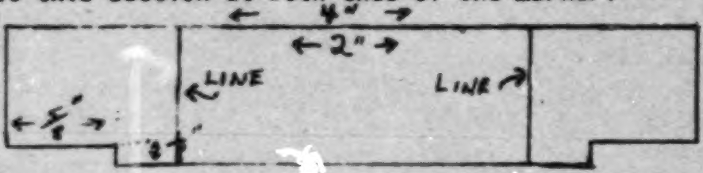
Each student will be able to build his own row markers to insure germinating seeds will be placed at their proper depth and spacing.

Here's What You'll Need:

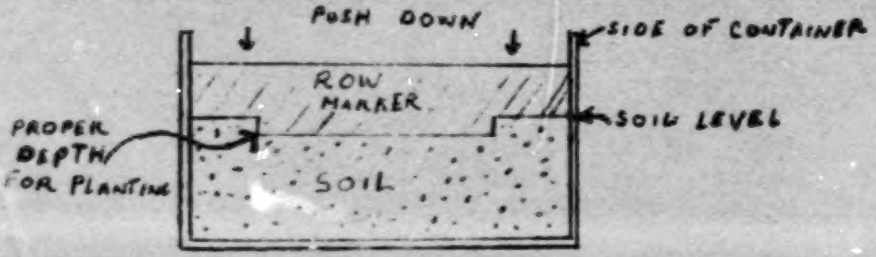
1. tongue depressor or heavy cardboard
2. knife
3. ruler and pencil
4. scissors

Here's How To Do It:

1. Cut the tongue depressor 4" in length so that it will fit into your milk carton. If you are using a flat, your marker must be as long as the flat is wide.
2. Now measure in 5/8" from each end and 1/8" from one edge and cut out this section at both ends of the marker.



3. If a deeper row is needed, use the other edge and cut it 1/4" deep rather than 1/8".
4. Now with pencil make two marks across the surface of the depressor with the marks 1" from each end. This then will be used to measure 1" spacing of the rows. When using marker, measure in 1" from carton edge; at this point place the marker across carton with notched edge against the soil; press down firmly until shoulders of the marker are at the soil surface. Now use the 2" lines spacing on your marker to mark the next row and repeat until you have marks across your flat or carton.



BUILD A GROWING FLAT

ACTIVITY 3-A

Here's Why:

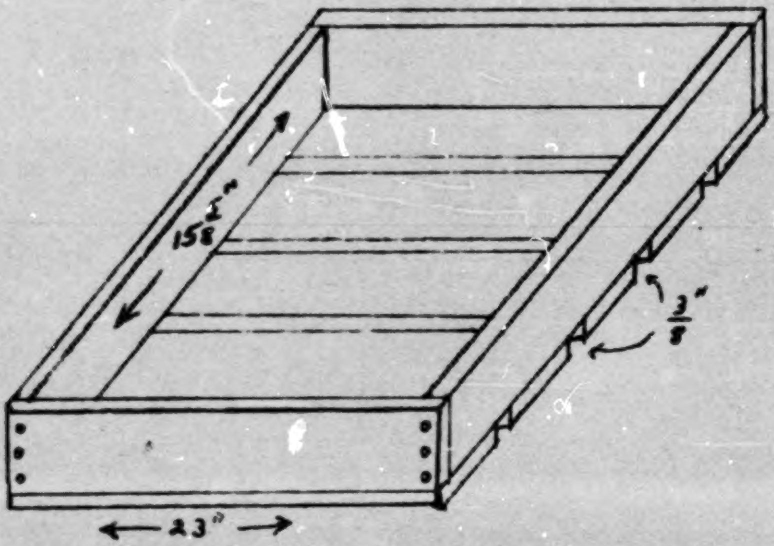
Each student will be able to build a germination flat that can be utilized in a project for seedling germination.

Here's What You'll Need:

1. hammer, cross cut saw, and tape or ruler
2. red wood stock
    a. 3/4" x 4" x 4'
    b. 1/4 lb. of 4d or 6d nails

Here's How To Do It:

1. Take the 3/4" x 4" piece and cut 2 pieces each 23" long.
2. Take the 1/3" x 4" piece and cut 4 pieces 23" long and 2 pieces 15 5/8".
3. Now take the 2 pieces 3/4" x 4" x 23" (these are the ends), place the 2 pieces 1/2" x 4" x 15 5/8" inside the ends at the edges and using 3 nails to an edge nail these together. (See diagram.)
4. Now take the 4 pieces 1/2" x 4" x 23" long and lay them from side to side spacing them 3/8" apart and nail them to the sides and ends forming a bottom to your flat. (See diagram.)



MAKING THEM GROW

ACTIVITY 4-A

Here's Why:

Each student will understand flower seed germination by actually performing the tasks involved for use in potting for both indoor and outdoor gardens.

Here's What You'll Need:

1. seed flat or milk cartons (cut off 5" deep)
2. mixed soil, vermiculite
3. shredded peat moss
4. sand
5. markers
6. protective fungicide (thiram or ferbam)
7. seeds of various flowers

Have You Done This Yet?

1. Made a row marker (See activity 2-A).
2. Built a flat (See activity 3-A)
3. Mixed soil. (For this activity you'll need soil with 2 parts loam, 2 parts sand, 1 part peat moss, and run it through a course screen. For procedure, see Activity 1-A.)

Here's How To Do It:

1. Take your flat that has been built or the cut milk cartons. Be sure there are cracks or holes in the bottom to provide drainage.
2. The mixed soil and tools should be sterilized either by steam or chemical (180°F for 30 minutes or commercial formalin--40% formaldehyde in 60% water.)
3. Cover the cracks or holes in the bottom of your flat with moist peat moss; then fill the flat or carton up to 3/4" of the top with the soil mix.
4. Level and firm soil with row marker.
5. Sprinkle soil with water and let excess drain away.
6. Add 1/4" of vermiculite over surface of soil; do not pack and sprinkle lightly with water.
7. Mark rows in the vermiculite by use of the row marker so that they are 2" apart and 1/8" deep.
8. Treat seeds with the fungicide by adding a pinch the size of a match head to the package of seeds and shake vigorously. If the seed has been treated before, it will be marked on the package and need not be done again.
9. Sow seeds thinly and uniformly into rows made previously.

10. Cover the seeds with a thin layer of vermiculite. The layer should be no thicker than three times the diameter of the seeds you are using.
11. Cover the flat or carton with clear polyethylene (not Saran Wrap); place in semi-shade, draft-free location with a temperature of 65° to 75° F. Remove the cover gradually as seeds start to germinate.
12. Check moisture twice a day, and water the flats by setting in a pan of water for a few minutew, or use a fine spray to keep vermiculite moist.
13. When germination is completed, move to a location in the sunlight; maintain 65°F temperature and not below 55°F.
14. Transplant to a pot as soon as plants can be handled by their leaves.

LET'S MOVE THEM

ACTIVITY 5-A

Here's Why:

Each student will be able to properly transplant seedlings from flats to pots for use in gardens.

Here's What You'll Need:

1. seedlings from activity 4-A
2. 4" pots or smaller, depending on plant size
3. peat moss
4. soil mixture from activity 1-A
5. labels

Have You Done This Yet?

1. Made the soil mixture (See activity 1-A).
2. Completed germination of seeds and grown them to seedlings (See activity 4-A).

Here's How To Do It:

1. Use a large table for this activity so that there is room for flats, potting soil, pots, and a space for the completed potted plants.
2. Place the soil and empty pots in the center of the table so that there is room on each side for the flats and the filled pots.
3. Fill the pot from the soil pile so that 1/2 of the lip of the pot is free of soil. Compress soil lightly in the pot.
4. Make a hole in the soil with your finger to the depth of the root of the seedling.
5. Now remove a seedling from the growing flat or carton handling it by its leaves and not the stem. Shake roots lightly to remove excess vermiculite.
6. Place seedling in hole and with the thumbs and forefingers of both hands, compress the woil around the base of the stem.
7. Now remove pot to growing area and be sure to water thoroughly.

Don't:

1. Allow seedlings to remain out of soil for any length of time as the roots will dry out.
2. Let the soil come up too close to the top of the pot as this space is necessary for good watering.

LET'S GO OUTSIDE

ACTIVITY 1-B

Here's Why:

To have student prepare an outside bed for plants--either seeds or potted plants.

Here's What You'll Need:

1. plot of ground outside
2. spade
3. rake
4. fertilizer 5-10-5 (1 1/2# per 100 sp. ft.)

Here's How To Do It:

1. Bed preparations are done the fall before planting but may be done in the spring.
2. Test soil for water absorbing qualities by digging a hole 10" deep and fill the hole with water. The next day refill the hole and see how long the water remains. If it drains away in 8-10 hours, the permeability is sufficient for good growth.
3. If draining doesn't take place then soil must be lightened with peat moss and sand.
4. Next, spade soil to depths of 8" to 10". Turn soil over completely. Remove large stones and trash. Keep moist until winter. Re-grade just before planting in the spring.
5. Before planting, add fertilizer 5-10-5 at 1 1/2# per 100 sq. ft.
6. Rake surface smooth and you are ready for planting.
7. An edging around the bed will help prevent outside growth and gullying in heavy rains.

Don't:

1. Forget water in the fall after spading.
2. Raise the bed above ground level without taking special precautions to prevent gullying and water loss.

Here's Where You Might Find More Information:

Home & Garden Bulletin No. 91, U. S. Dept. of Agriculture.
Farmers' Bulletin No. 1171, U. S. Dept. of Agriculture.

FRESH AIR AND SUNSHINE

ACTIVITY 2-B

Here's Why:

To instruct student how to move a potted plant for repotting or transplanting.

Here's What You'll Need:

1. potted plants ready for repotting or transplanting outside
2. trowel

Have You Done This Yet?

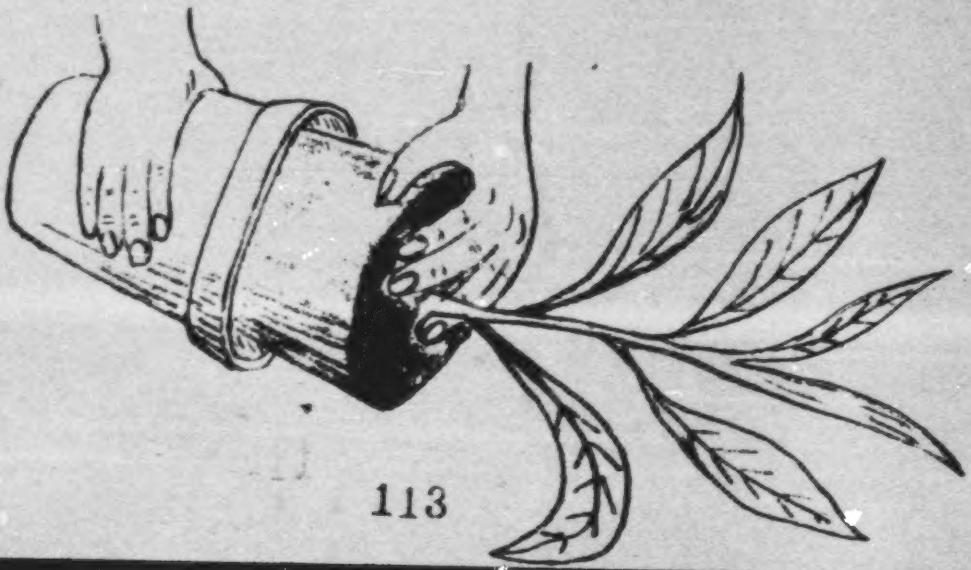
1. Mixed potting soil (Activity 1-A).
2. Prepared an outside bed (Activity 1-B).

Here's How To Do It:

1. Place one hand on soil surface in the pot to support soil, spread finger around the plant stem.
2. Turn pot upside down and tap the edge of the pot with the trowel handle until the ball of soil becomes loose and slips down into your hand (Diagram 1.)
3. Remove pot with other hand and sit upright gently.
4. Prepare larger pot by addition of soil or prepare a hold in the open ground.
5. Place plant ball of soil into pot or hole and press soil firmly around plant ball.

Don't:

1. Allow plant ball to sit for extended periods of time out of the container as the roots will dry out.



THEY'LL BE BACK AGAIN NEXT YEAR

ACTIVITY 3-B

Here's Why:

Instruct student in preparation of an outdoor garden for perennials.

Here's What You'll Need:

1. bedding garden
2. various perennials
3. trowel

Have You Done This Yet?

1. Let's go outdoors preparation of soil for a garden activity 3-B.

Here's How To Do It:

1. Soil preparation and preparation of the bed.
2. Select perennials. Be sure that they are selected far enough in advance and planted the proper times so that they will bloom for you the first year.
3. Plant bulbs, corns or other pots per instructions for that particular perennial.

Here's Where You Might Find More Information:

1. Home & Garden Bulletin No. 114, U.S.D.A.
2. Home & Garden Bulletin No. 136 (Bulbs), U.S.D.A.
3. Home & Garden Bulletin No. 126 (Peonies), U.S.D.A.
4. Home & Garden Bulletin No. 25 (Roses), U.S.D.A.

YOUR OWN FERTILIZER

ACTIVITY 4-B

Here's Why:

If gardening is to continue, fertility of garden and cost are important; so a student should learn an inexpensive way of doing this by making a compost pit.

Here's What You'll Need:

1. shovel
2. old boards to line pit

Here's How To Do It:

1. Dig a pit 3 or 4 feet deep and as wide and long as you need.
2. Line the sides with boards.
3. Put in a 6" layer of plant material. Sprinkle this layer with lime and 5-10-5 fertilizer, 1 cup each to a square yard of litter.
4. Add a thin layer of soil to hold down; wet thoroughly.
5. Repeat as often as plant materials accumulate.
6. Make center lower than the edges so rain will collect.
7. Cover the pit with plastic so it won't dry out. (Cut a hole in center of plastic to catch rain fall.)
8. Turn the contents of the pit every three or four months.
9. The material will be ready to use the next spring.
10. When using the compost in the garden, cover it with hay or peat moss.

Don't:

1. Let the compost pits dry out.

PLANTS BEHIND GLASS

ACTIVITY 1-C

Here's Why:

Instruct student in growth of plants indoors by making indoor terrarium in various types of glass containers.

Here's What You Will Need:

1. terrarium or large glass bowl, jar or bottle that can be covered
2. a glass cover for your container
3. charcoal
4. moss
5. soil (2 parts loam, 2 parts coarse sand, 1 part leaf mold)
6. gravel
7. plants suitable for use in a terrarium:
    - Baby's tears
    - Begonia
    - Fittonia
    - Miniature ivy
    - Dutchman's breeches
    - Varieties of mosses
    - Maranta
    - Small palms
    - Pteris
    - Peperomia
    - African violet
    - Mushrooms
    - Evergreen seedlings
    - Dog-tooth violet
    - Heptica

Have You Done This Yet?

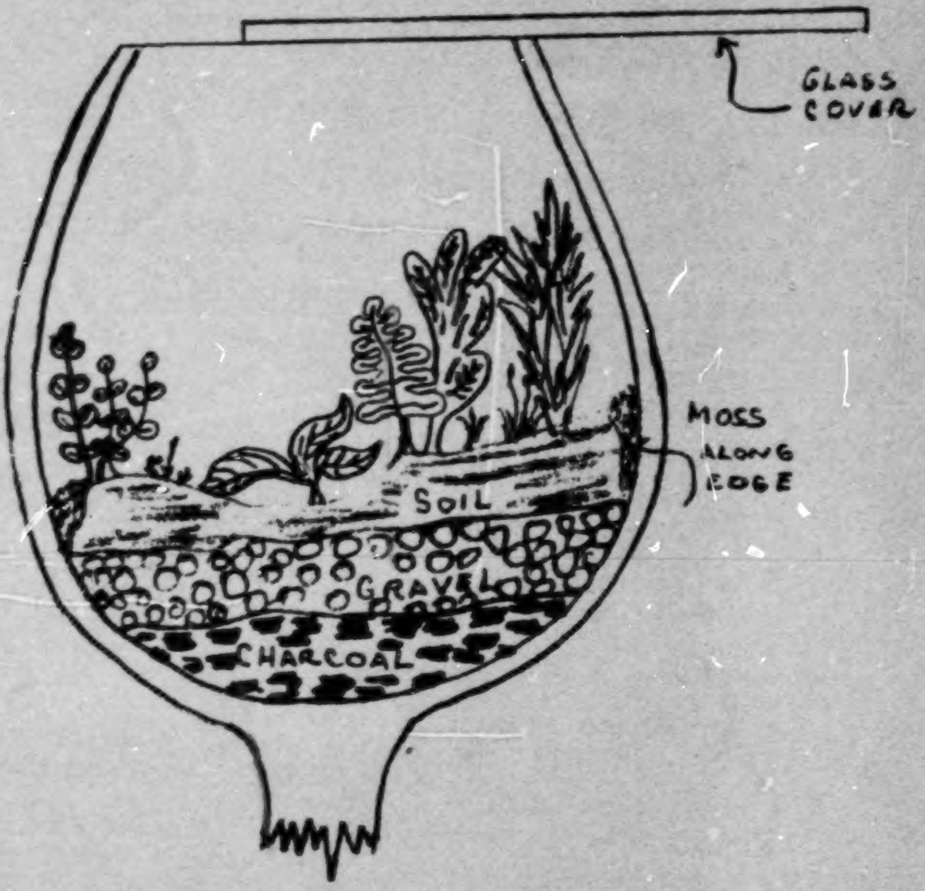
1. Potting soil (Activity 1-A).

Here's How To Do It:

1. Select an attractive container.
2. Wash and polish so it will sparkle.
3. Where is terrarium going to be located or viewed from, as layer plants should be in the background and small ones in front.
4. Place 1/2" to 1" of charcoal in the bottom of the container.
5. On top of this add a 1" layer of gravel.
6. On top of this add 1 1/2" to 2" of soil. The mixture called for above is not too rich to create rapid growth so plants outgrow their limited space.
7. Arrange the soil in hills and valleys.
8. Place plants so that they contrast each other as to color and texture. One way is to place a plant of interest near the front and center.
9. If plants grow too large, trim or replace with cuttings or new small plants.
10. Place glass cover partially over the terrarium to control humidity and water. If water condenses on the sides and cover, remove cover for a time.
11. Place in good light but not direct sunlight.

Don't:

1. Place in direct sunlight; you will overheat and kill the plants.
2. Over-water so that water is standing in the surface of the soil.



BEAUTY INDOORS

ACTIVITY 2-C

Here's Why:

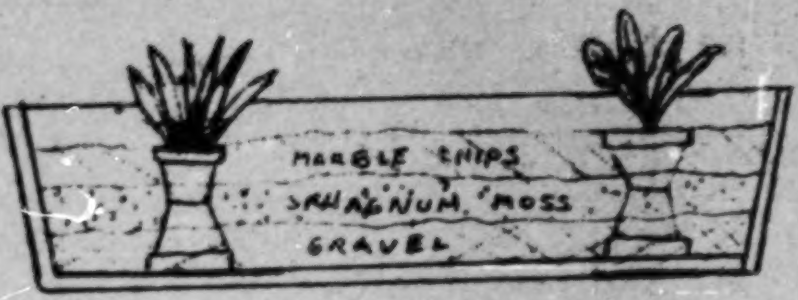
To instruct student in plant growth indoors by having him make and grow plants in an indoor planter.

Here's What You'll Need:

1. an indoor planter for construction of several types (see Bulletin No. 133, pp. 2-7)
2. soil (1 part loam, 1 part sand, 1 part peat moss)
3. trowel
4. plants (for plant selection according to light requirement, see Bulletin No. 133, pp. 9-10)
5. fertilizer 5-10-5, 1 teaspoon per sq. ft. of soil
6. sphagnum moss or gravel

Here's How To Do It:

1. Locate a place where day temperature is about 75°F and 65°F at night.
2. Plants do best in an indoor planter if they are individually potted in clay pots.
3. Place potted plants in planter box. If too short, sit the pot on top of another pot turned upside down.
4. Now add 3" to 4" of coarse gravel around the pots.
5. Fill in around pots to fill the rest of the box with unmilled sphagnum moss (Diagram 1).
6. Cover top with pea gravel or marbel chips.
7. If a light is used over the planter, even a fluorescent lamp should be 4" away; incandescent lamps further than this because of heat.
8. Fertilize every 3 weeks.
9. Watering is most important;first after building water soil and sphagnum moss until they are saturated but do not flood.
10. Now water only when leaves first show signs of wilting; then water again as before.
11. Wash leaves with soap and water and rinse thoroughly with clear water. Remove all yellow leaves.
12. Exact watering: use a small funnel and insert the neck into soil of the pot.
    a. Fill the funnel with water until it empties; then fill again.
    b. When funnel no longer drains, stick your finger over the end of the neck of the funnel so no more will run out and remove from the soil (Diagram 2).



(1)

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FOOD IN A BASKET

ACTIVITY 3-C

Here's Why:

To instruct student in plant growth by having him grow vegetables in various types of containers indoors.

Here's What You'll Need:

1. containers (must be large enough to hold the plant when full grown--clay pots, wire baskets, wooden box or bushel basket)
2. vegetables:
   chives - 6" pots
   tomatoes - 10" pots
   radishes/onions - 10" pots
   or others
3. soil (2 parts loam, 1 part sand, 1 part peat moss)

Have You Done This Yet?

1. Mix soil (activity 1-A)
2. Grow seedlings (activity 4-A)

Here's How To Do It:

1. Condition your container by using a wood preservative if it is made of wood.
2. Make sure there is proper drainage in the bottom of the container; if not, drill 1/4" holes along side near the bottom of the container.
3. Add 1/2" of coarse gravel to the bottom of each container.
4. Add soil to container to 1" of the top.
5. Add fertilizer 5-10-5, 1 teaspoon per 1 sq. ft. every 3 weeks.
6. Plant seeds or transplant seedlings into your container.
7. Light: vegetables grow best in full sunlight.
8. Planting schedule - see Bulletin 168.
9. Water when woil becomes dry down to the depth of 1/8". If hot and dry, 3 times a week will be enough. Use a sprinkling can and do not water late in the evening.

Don't:

1. Over-water. It will kill the plants.
2. Allow weeds to grow.

Here's Where You'll Find More Information:

1. Home & Garden Bulletin No. 163, U.S.D.A.

LET'S PLANT A TREE

ACTIVITY 1-D

Here's Why:

To instruct student in how to plant a young tree.

Here's What You'll Need:

1. a balled and burlapped tree
2. one stake 4 to 6 feet long
3. 2 lengths of rope 20" long
4. shovel
5. hammer

Here's How To Do It:

1. Dig a hole that has 6" clearance all around the ball and deep as the ball is tall.
2. Place 2" or 3" of fertile soil in the bottom of the hole.
3. Now place tree in the hole.
4. Cut and open up the burlap, folding it down into the hole.
5. Fill the hole with soil about 1/2 full and water thoroughly.
6. Finish filling the hole but leave a saucer-shaped depression 4" to 6" deep about 2 feet in diameter around the tree trunk.
7. Fill saucer with water.
8. Drive stake along side of tree along the southwest side.
9. Place one piece of rope at the top of the stake, the other at the middle of the stake.
10. Tie the tope in a figure 8 on the stake and around the tree, using hose or leather where rope goes around the tree.

Don't:

1. Allow roots to dry out.
2. Allow tree not to be straight up and down.

TIME TO DIG UP A TREE

ACTIVITY 2-D

Here's Why:

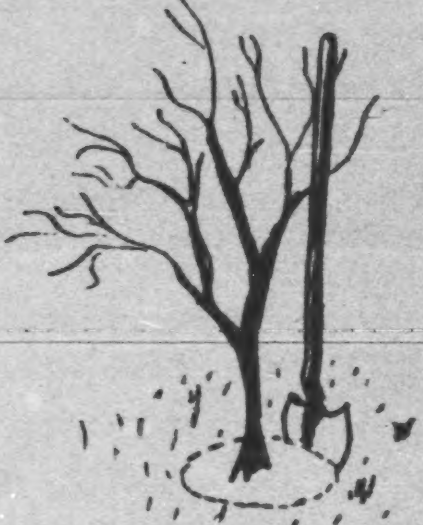
Have student learn how to make a tree ready for moving.

Here's What You'll Need:

1. spade
2. fertilizer
3. burlap (opened gunny sack)
4. string (to the burlap)
5. nails

Here's How To Do It:

1. In the fall mark a circle around the tree with a radius 1/4 the height of the tree (Example: 6 ft. tree = 18" radius).
2. Just outside the circle cut with the spade a circle the depth of the spade's blade.
3. In the spring cut a ball 8 times the thickness of the trunk (1 1/2" trunk - 12" ball of soil).
4. Dig a circular trench around the tree and undercut as far as you can.
5. Fasten a corner of the sack to the tree trunk.
6. Draw burlap down along one side to the base. Tuck it into a tight roll.
7. Now work from the other side shoving the spade under the tree. Cut the ball loose from the bottom.
8. Tilt the ball away from you; pull the burlap under the ball and up the other side.
9. Pin the edges down with nails.
10. Put board under the ball and lift it out of the hole.



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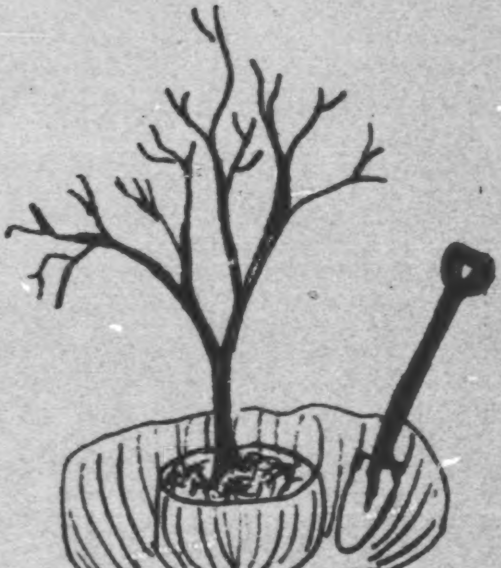

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SOME FOR BEAUTY, SOME FOR PRODUCTION

ACTIVITY 3-D

Here's Why:

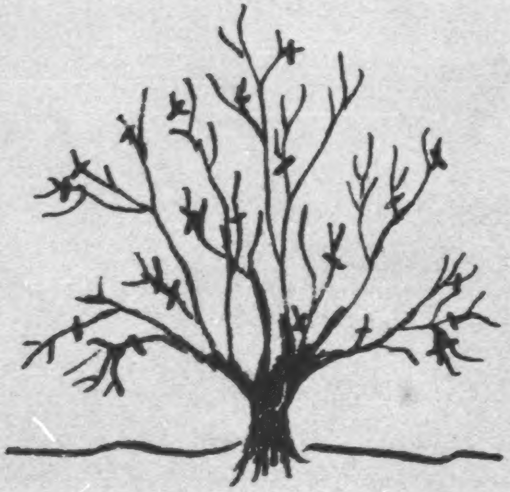
To instruct the student by having him understand the principles of pruning and how to maintain normal growth and flowering.

Here's What You'll Need:

1. hand pruning shears
2. full-grown shrubs

Here's How To Do It:

1. Shrubs should in general be pruned after their normal flowering period.
2. Later summer flowering shrubs should be pruned in early spring.
3. Never remove more the 1/3 of the old wood in any one year.
4. See Diagrams for pruning flowering shrubs--Diagram 1-proper way; Diagram 2-improper method.



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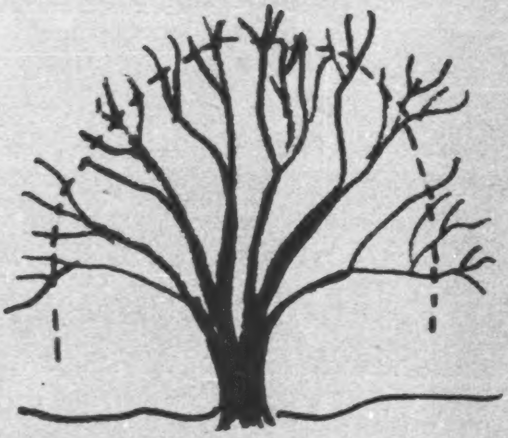

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LET THE SUN SHINE IN

ACTIVITY 4-D

Here's Why:

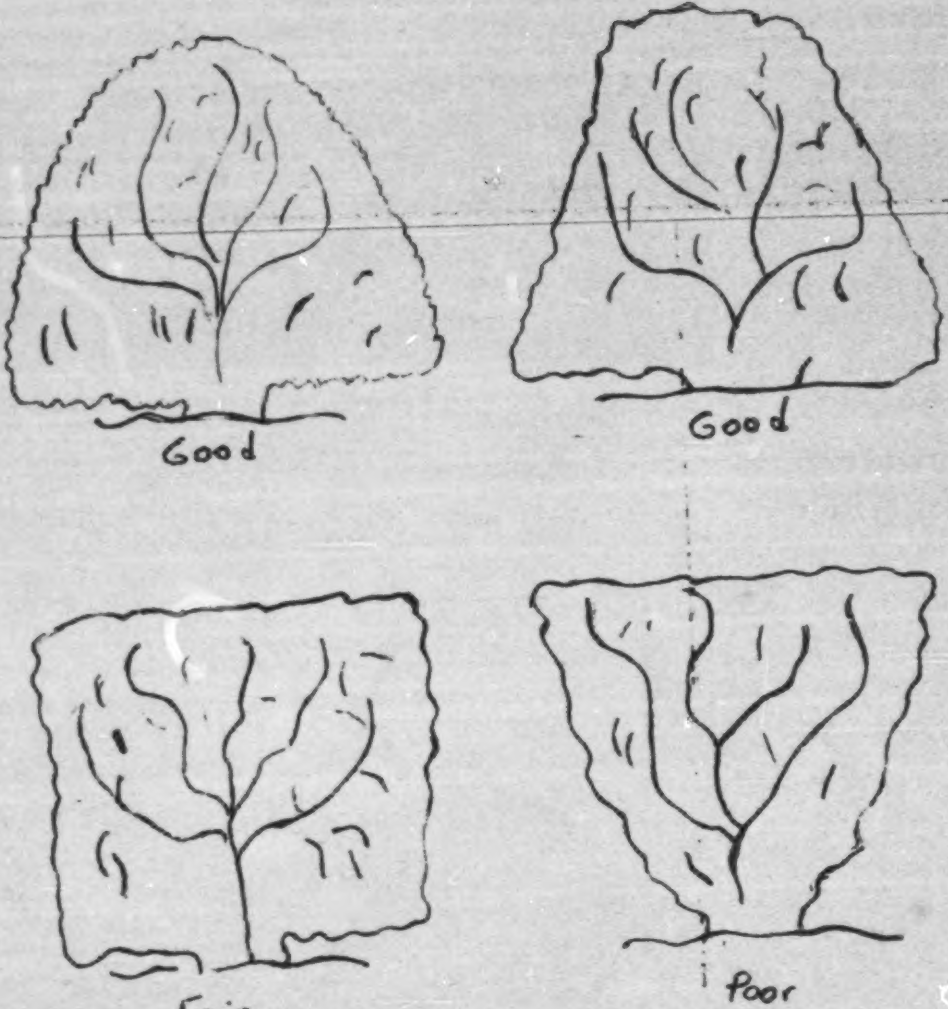
To instruct the student by having him prune and trim a hedge.

Here's What You'll Need:

1. shears or hedge trimmer
2. full grown hedge
3. rake

Here's How To Do It:

1. Hedge trimming will be done several times during the season.
2. First pruning should be done in early spring before growth starts.
3. Last clipping 6 weeks before cold weather.
4. Evergreens only one clipping, and this should be done after growth has started in the spring.
5. The shape to which it is pruned will determine general appearance - see diagrams for proper technique. They are trimmed to allow as much light to reach lower branches as possible.



Good Good

Fair Poor

Figure (1) - Hedge Shapes

LET'S CHOP IT UP

ACTIVITY 5-D

Here's Why:

To instruct the student in developing the skill involved in pruning a tree by actually doing the pruning.

Here's What You'll Need:

1. pruning shears
2. hand trimming saw
3. wound dressing (a leaded paint), preferably black
4. tree

Here's How To Do It:

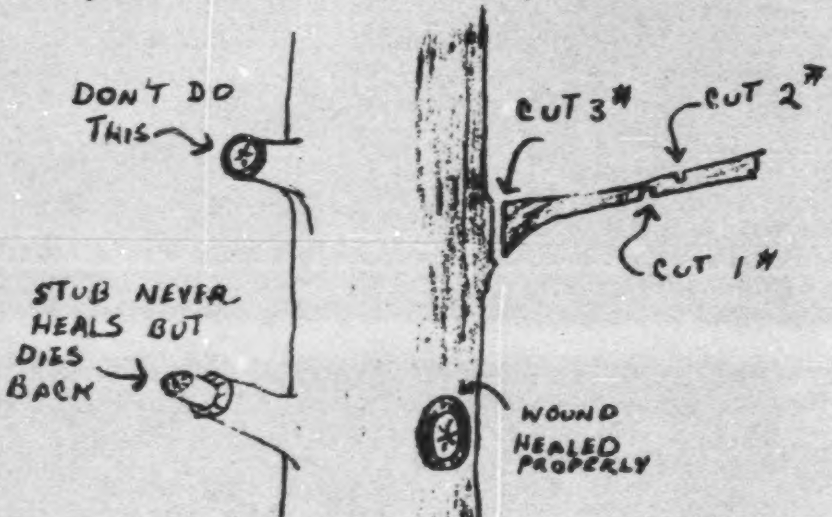
1. Trees should be pruned in late winter or early spring.
2. Select large limbs to be trimmed.
3. Undercut the limb a foot from the trunk until the saw binds.
4. The second cut is made 2" past the first cut. (This allows the break and won't hurt the bark.)
5. The third cut is made parallel to and as close to the trunk as possible. Diagram 1.
6. Apply wound dressing to ones larger that 2" in diameter. An application each year until it heals.

Don't:

1. Leave a stump on the trunk; it will rot.

Here's Where You Can Find More Information:

1. Pruning Fruit Trees, Circular 1010, Cooperative Extension, MSU.
2. Pruning Shade Trees, Bulletin No. 83, U.S.D.A.



A HELPING HAND

ACTIVITY 6-D

Here's Why:

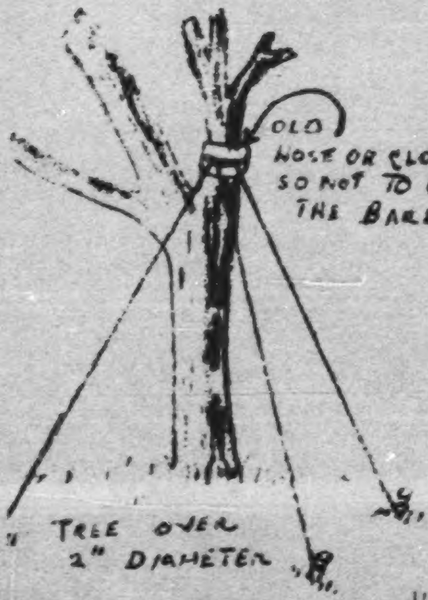
To instruct the student in how to train and brace young trees to give them the growth desired.

Here's What You'll Need:

1. trees
2. wire, bolts, eye bolts
3. stakes, old hose or cloth
4. wire, trellis
5. cutters

Here's How To Do It:

1. See diagrams 1-2-3 for proper technique in bracing tree.
2. Espaliering is traning a young plant into growing in a definite pattern along a wire, trellis, rail or along a building.
3. Bind and tie succulent shoots into desired positions.
4. Now prune away branches that are growing in undesirable positions. See Diagrams 4-5-6.
5. The purpose may be for greater fruit productivity, quality or beauty.



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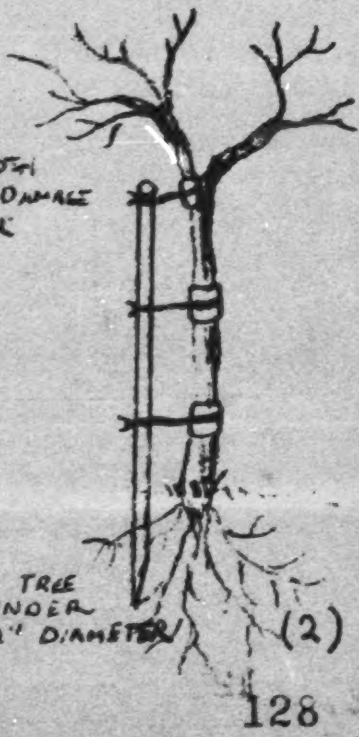

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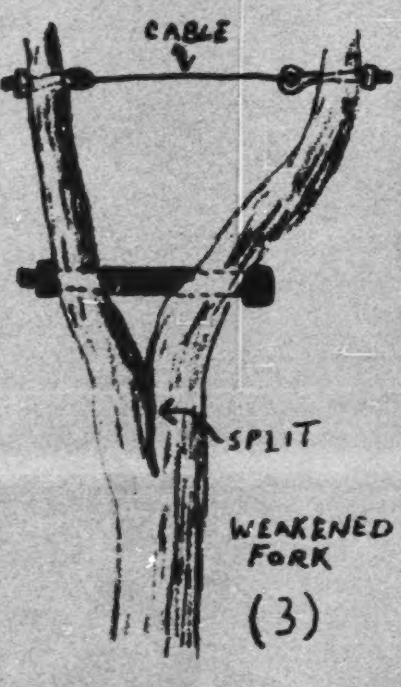

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Diagram (4)

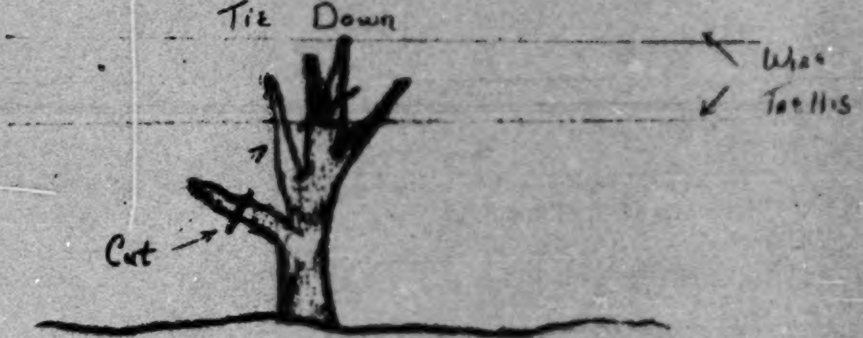


Diagram (5)
First Growing
Season

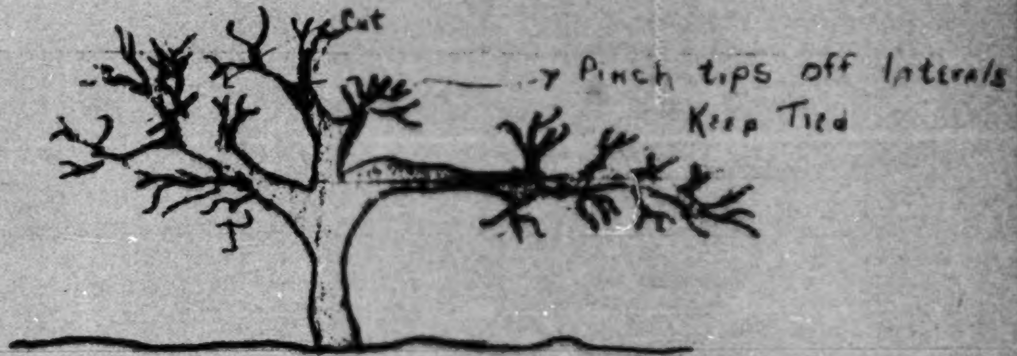
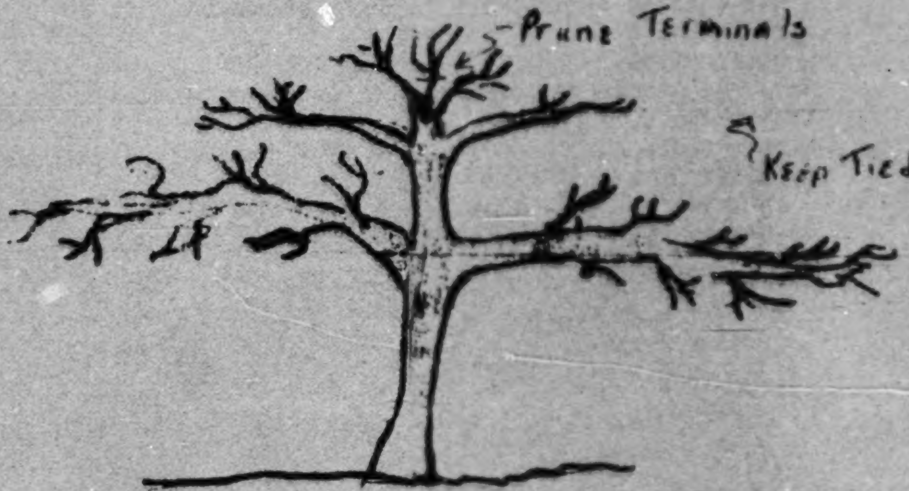


Diagram (6)
Dormant
Season



NEW FROM OLD

ACTIVITY 1-E

Here's Why:

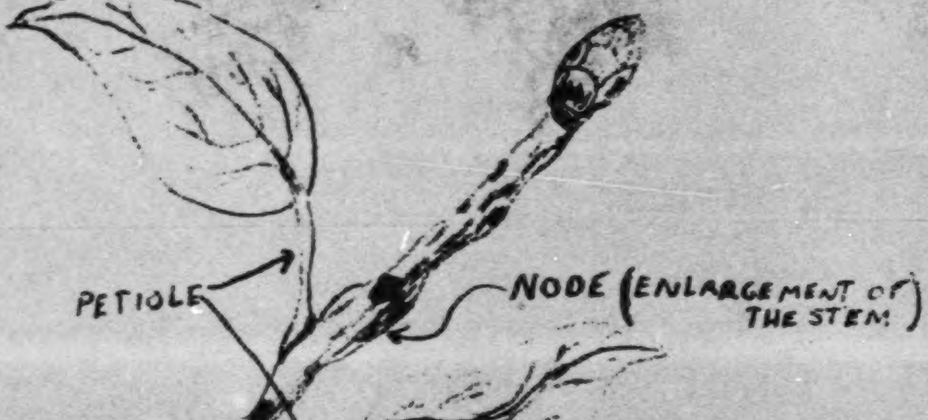
To start new plants by having the student make cuttings of young woody stems and rooting them.

Here's What You'll Need:

1. knife
2. containers - 4" pots or larger
3. peat moss
4. sand or vermiculite (medium)
5. labels
6. evergreens or softwood plants

Here's How To Do It:

1. Place 1/2" of peat moss in bottom of the container.
2. Fill pot 1/2" from top with sand or vermiculite.
3. Cut the tops of the plant 3" long just below a node. Diagram 1.
4. Remove all leaves, except the top three; leave all petroles.
5. Make a hole 1" deep in the sand.
6. Place cutting in the hole and pack soil around cutting.
7. Place cutting in indirect sunlight and water. Do Not let it dry out.
8. Label cuttings.
9. Cuttings should be taken in the spring on deciduous plants after they cease to elongate.
10. With evergreens, the fall or early winter is the best time for cuttings.
11. Plant material should be tested by seeing if it will break clean when snapped. If it will, it will make good cuttings.



LET THE ROOTS HANG OUT

ACTIVITY 2-E

Here's Why:

To instruct the student how plants can be propagated vegetatively by having them air layered to reproduce a new plant.

Here's What You'll Need:

1. one or two ficus (rubber plant), philodendron, or croton
2. rooting compound (hormodin 2 or cutstart)
3. wet sphagnum moss 100% saturated (soak 24 hours)
4. aluminum foil or black polyethylene
5. sharp knife
6. squeeze bottle
7. pots

Here's How To Do It:

1. Select a plant with a minimum of 7 or 8 leaves.
2. Cut off one or two middle leaves in the semi-hard wood or green tissue even with the stem to allow room to work (Diagram 1).
3. Make a 45° to 60° angle cut upward through a node. Cut should be 3/4" diameter of the stem (Diagram 2).
4. Open cut slightly; be careful not to break the stem.
5. Dust rooting compound into the cut with the squeeze bottle.
6. Take a handful of wet sphagnum moss, press it upward around the cut. Squeeze out excess water. Be sure it completely covers the cut. You should have a ball now surrounding the cut.
7. Now put a double layer of aluminum foil around the wet ball of sphagnum moss. Squeeze tightly around stem at top and bottom to eliminate light and water loss (Diagram 3).
8. Maintain plant at 80°F to 85°F. At lower temperatures it will take longer.
9. In 30 days remove foil and if roots have formed they will be growing out in the sphagnum moss.
10. If roots are well formed, cut off below the foil bundle and pot up the new plant.

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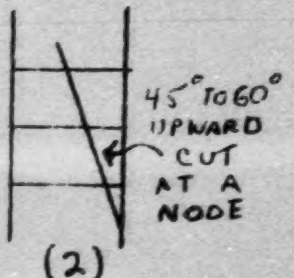

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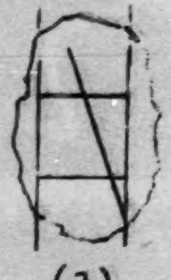

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IT'S ALL IN A BUD'S HANDS

ACTIVITY 3-E

Here's Why:

To instruct student in various methods of grafting by having him do different kinds of grafting.

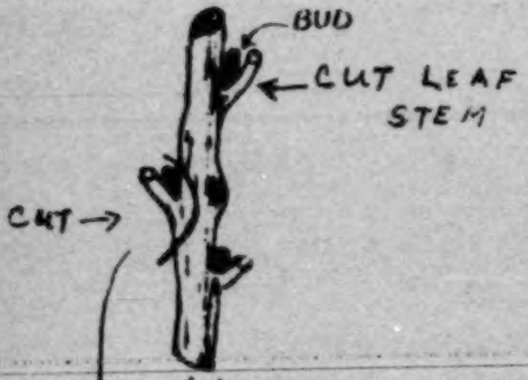
Here's What You'll Need:

1. sharp knife
2. grafting tool
3. several rubber bands
4. grafting wax
5. bud sticks
6. stock for budding
7. wedge-shaped scions

Here's How To Do It:

1. Cut bud sticks from desired variety. Buds must be plump but dormant.
2. Cut leaf off 1/4" from the bud or stem.
3. This leaf stem can now be used for handling and protects the bud (Diagram 1).
4. With your knife make a T-shaped cut in the bark of the stock. Start the cut closest to the ground and cut upward vertically 1" on the stem. Now make the cross cut at the top of the vertical cut 1/3 of the way around the stem. Cuts should only be through the bark and not into thw wood (Diagrams 2 and 3).
5. With the point of your knife, lift the bark along both sides of the vertical cut (Diagram 4).
6. Now cut the bud by making a cut 1/4" below the bud. Cut only deep enough to make a thin sliver of wood, then pass under the bud outward until you have 3/4" shield of bark around the bud (Diagram 1 and 4).
7. Insert the lower part of the bark shield into T-cut of stock; push it down so cut surface of shield is flat against the wood of the stock (Diagram 5).
8. The bud shield should be completely enclosed in teh T-cut. If it protrudes at the top, cut off the shield (Diagram 6).
9. Now wrap the cut with a piece of rubber band taking 3 or 4 turns below and then above. Do not cover the bud (Diagram 7).
10. Three to five weeks later remove wrapping.
11. Bud will remain dormant until the next season.
12. Cut off top of stock above bud. This will force it to sprout (Diagram 8).
13. Budding should be done during the growing season when dormant buds become available.

BUD GRAFTING



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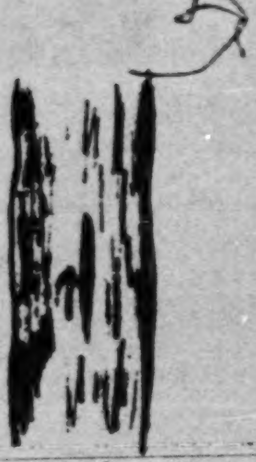

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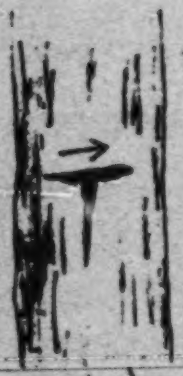

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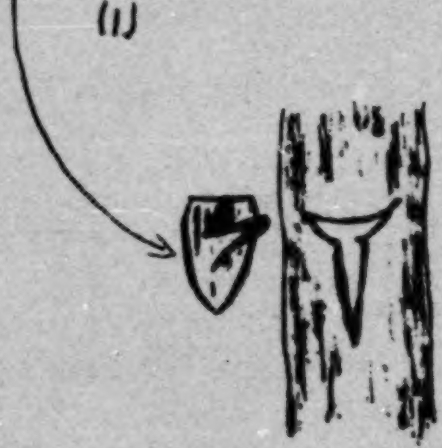

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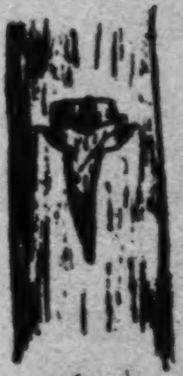

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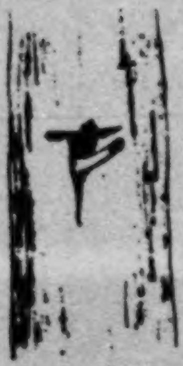

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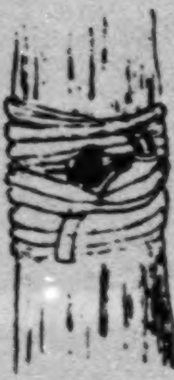

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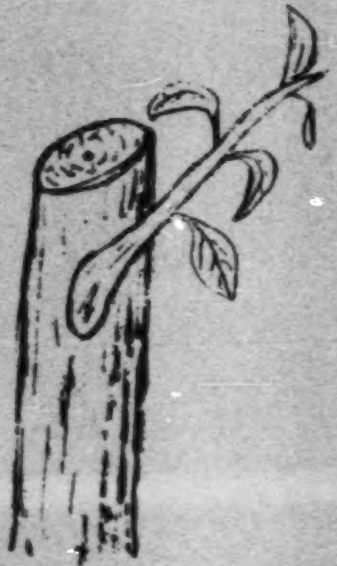

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CLEFT GRAFTING

ACTIVITY 4-E

Here's Why:

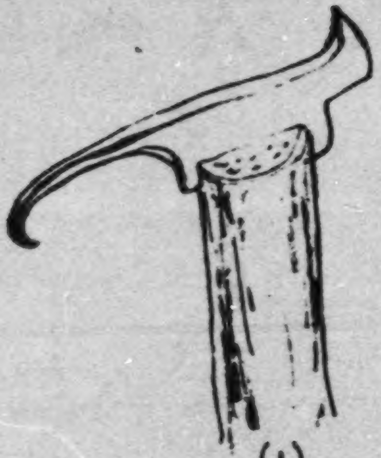
Same as Bud Grafting

Here's What You'll Need:

1. sharp knife
2. grafting tool
3. tree dressing compound
4. stock for cleft grafting 2" to 3" in diameter
5. wedge-shaped scions

Here's How To Do It:

1. Cut or saw off the stock squarely where you want the graft made.
2. With the grafting tool split the end of the stock across the center to the depth of 2" or 3" (Diagram 1).
3. Prepare a scion - take a sharp knife; trim the butt of each scion to the shape of a wedge. Begin the cuts on each side of the lowest bud. Wedge should be in contact near outside edge (Diagram 3).
4. Not improper method in Diagram 6.
5. Place wedge tool in cut. Now place scions in the cut of stock and remove the wedge (Diagram 2).
6. Coat the wound with tree dressing compound (Diagram 7).
7. After first growing season inspect cut off the weakest scion and cover the stump with tree dressing compound.



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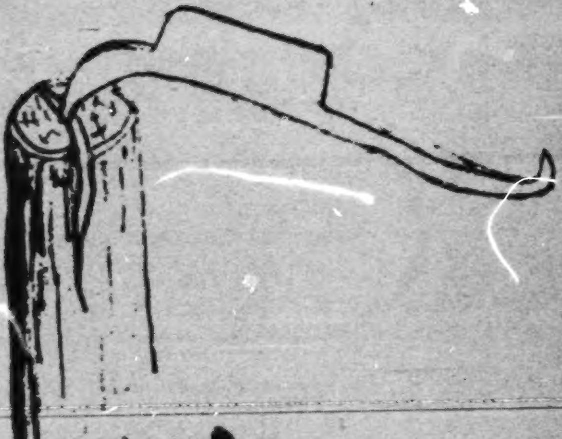

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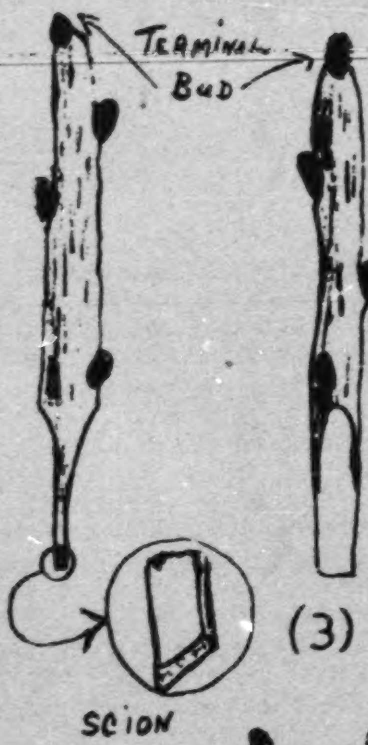

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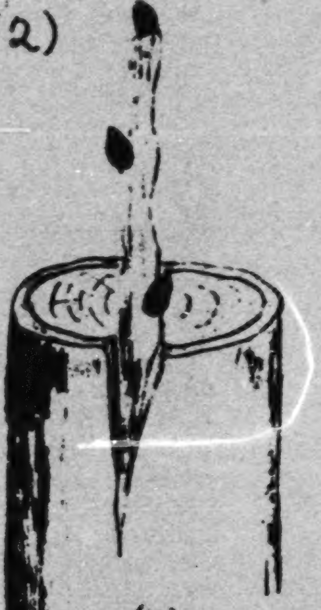

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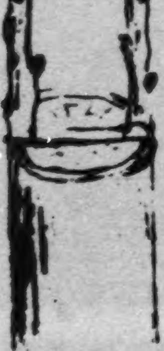

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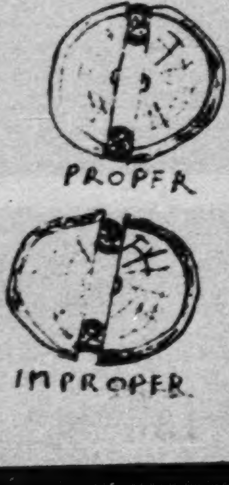

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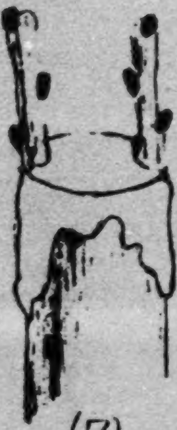

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A BLANKET OF GREEN

ACTIVITY 1-F

Here's Why:

To instruct the student in the preparation and establishment of a new lawn by seed or plug.

Here's What You'll Need:

1. spade or roto tiller
2. rake
3. balanced fertilizer probably 10-8-4 (if soil test not available)
4. roller seed applicator
5. seed or lawn plugs

Here's How To Do It:

1. Prepare area by first working the woil by turning it over completely.
2. Now smooth and rake soil and level it.
3. Add fertilizer after a soil test has determined the proper mix and #20 per 1000 sq. ft.
4. Fertilizer should be raked into the soil.
5. Moisten soil before addition of seed or plug.
6. If seeding, use applicator and spread seed according to sq. ft. to number of pounds as directed on package.
7. If plugs are used, 2" square plugs should be planted 6" to 12" apart so that they make good contact with the soil.
8. Immediately after planting roll the area to pack soil and firmly set the plugs.
9. Grass should be kept moist, water as often as it starts to dry out. When you water, soak the soil; don't water it lightly.
10. Once plugs start to grow, water only once every week or 10 days.
11. Mow lawn as soon as there is anything to mow. Mow often and regularly. In spring and fall twice a week is not too often.

Mow to height:		
	Kentucky Blue	2"
	Merion Blue	1 1/2" - 2"
	Delta Blue	2"
	Creeping Bent	1/2" - 3/4"
	Meyer Zoysia	3/4"

12. Keep weeds killed.

KIND AND CARE OF THE CARPET

ACTIVITY 2-F

Here's Why:

To show the student the differences in varieties and how to best care for them.

Here's What You'll Need:

1. plot area to raise various species--20' x 30' would be fine
2. variety of grass seed
3. spreader
4. rake, roller burlap
5. mower

Here's How To Do It:

1. Prepare area by working, fertilizing and smoothing as in Activity 2.
2. Mark areas off into small square plots.
3. Plots should be labeled.
4. Seed plots with various species and varieties of species.
5. page attached.

Here's Where You Can Find More Information:

1. Lawn Diseases, Home & Garden Bulletin No. 61, U.S.D.A.
2. Lawns - New and Old, Cic 1097, Extension Service, MSU.

Below are listed species and varieties of grasses classified as northern and southern species which could be used in the turf demonstration plots.

Northern Species
(Tennessee and Northward)

A. Bentgrass
    1. Arlington
    2. Colonial
    3. Creeping
    4. Penncross

B. Bluegrass, Kentucky
    1. Arboretum
    2. Common
    3. Delta
    4. Geary
    5. Merion
    6. Newport
    7. Park
    8. Troy
    9. Windsor

C. Bluegras, Routh

D. Fescue, Red
    1. Chewings
    2. Creeping Red
    3. Illahee
    4. Olds
    5. Pennlawn
    6. Ranier
    7. Trinity

E. Fescue, Tall
    1. Alta
    2. Goars
    3. Kentucky 31

F. Ryegrass
    1. Annual
    2. Perennial

Southern Species

A. Bahia
    1. Pensacola

B. Bermuda
    1. Bayshore
    2. Bradley
    3. Everglades
    4. Ormond
    5. Texturf
    6. Tiffine
    7. Tifgreen
    8. Tiflawn
    9. Sunturf
    10. U-3

C. Buffalo
    1. Ft. Collins
    2. Hays
    3. Nebraska
    4. Woodward

D. Carpet

E. Centipede

F. St. Augustine

G. Zoysia
    1. Meyer
    2. Emerald
    3. Flawn
    4. Ruglawn

BEST COPY AVAILABLE

LET'S DO SOME PLANNING

ACTIVITY 3-F

Here's Why:

To provide a guide for students to develop a landscape plan.

Here's What You'll Need:

1. graph paper with 1/8, 1/4 or 1/16 squares
2. list of landscape symbols
3. list of shrubs, trees, ground cover for area (see county extension office)
4. desk, T-square, pencils, etc.

Here's How To Do It:

1. Have student choose a plot to work on.
2. Draw a scale layout of plot showing existing structures such as houses, doors, windows, dirveway, sidewalks and other structures.
3. Locate present plants growing there.
4. Take an inventory of:
   a. family interests
   b. family likes and dislikes
   c. physical (direction of sun, soil content, temperature, water) and environmental factors
5. Start the landscape plan. On a fresh sheet of graph paper draw plot to scale.
6. Add all existing things that will be part of the original plan.
7. Divide lot into public, living, and service areas.
8. Make small cutouts so they can be moved from place to place before final placing is done.
9. Prepare table showing the characteristics, growth habits and mature size.
10. Now have other classmates evaluate your plan.
11. Draw in all and label new additions to your plot.
12. Develop a timetable for planting and changes.
13. Develop a list of materials and approximate cost.

Here's Where You Can Find More Information:

1. Landscaping, Circ 279, Extension Service, MSU.
2. Selection of Shrubs, Home & Garden Bulletin No. 142, U.S.D.A.
3. Diagrams are on file in the counselor's office. Copies are available.

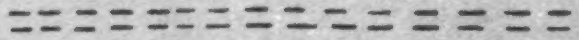
LANDSCAPING PLANNING SYMBOLS

LINES AND POSITIONS

BOUNDARIES

PROPOSED LINES

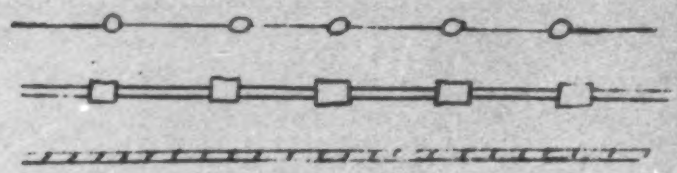
UNDERGROUND PIPES



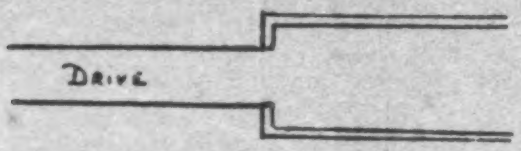
POWER POLE

STRUCTURES

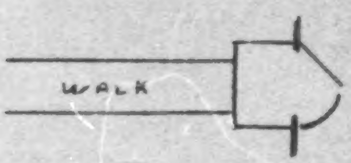
FENCES



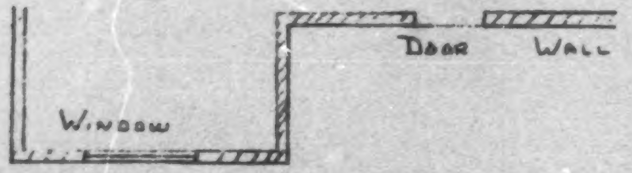
DRIVES



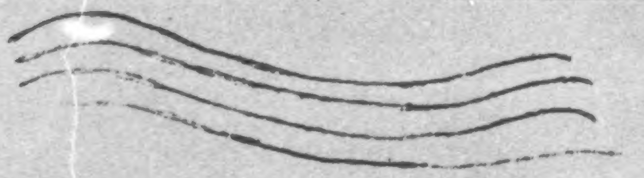
WALKS



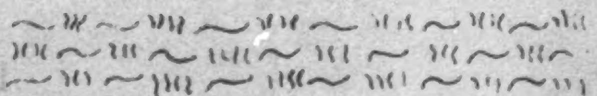
BUILDINGS



STREAMS

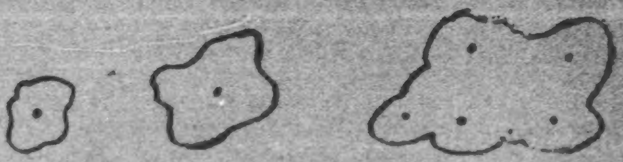


SWAMPY OR WET GROUND

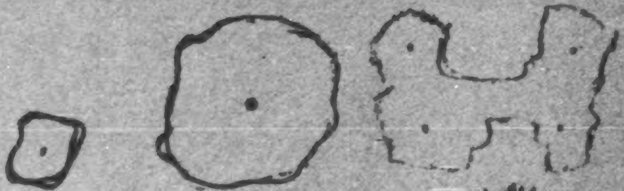


Plants

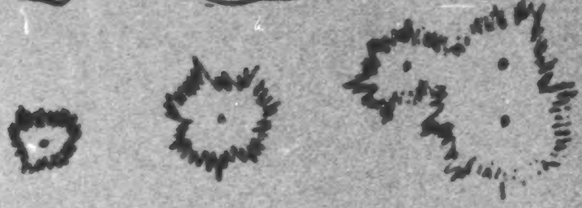
Shrubs (small, large, grouping)



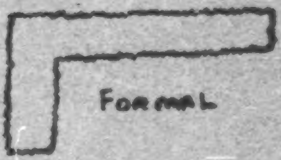
Trees (small, large, grouping)



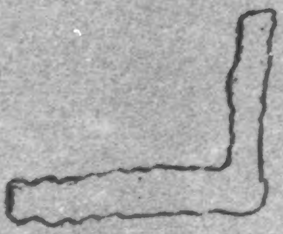
Evergreens (small, large, grouping)



Hedge (formal and informal)



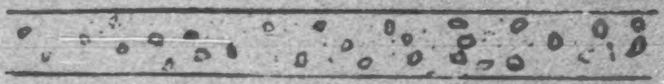
Formal



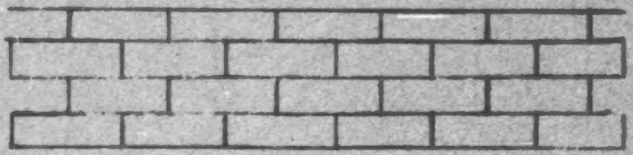
Informal

Masonry Materials

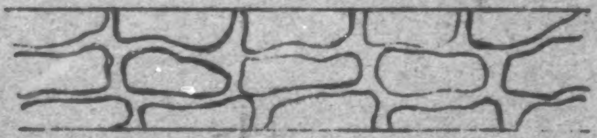
Concrete



Brick



Flagstone



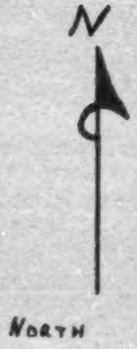
Directions

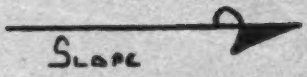
North

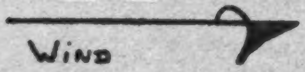
Slope

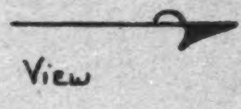
Wind

View









GET OUT OF THE HEAT

ACTIVITY 1-G

Here's Why:

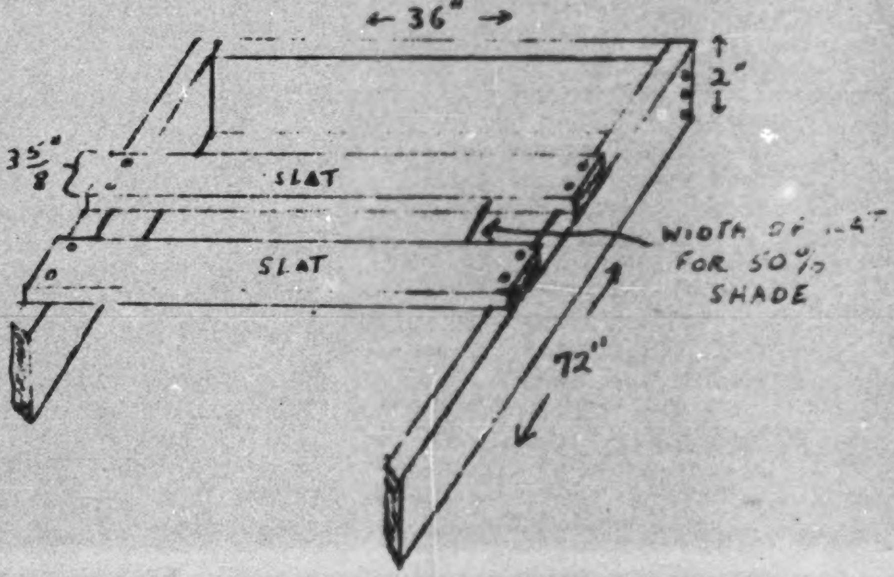
Instruct student in construction of a lathe screen for hot bed to prevent the sun from overheating the plants.

Here's What You'll Need:

1. wood: (should be redwood or batten strips)
   ends - 2 pieces 3/4" x 2" x 34 1/2"
   sides - 2 pieces 3/4" x 2" x 72"
   strips - 11 pieces 3/8" x 3 5/8" x 36"
2. assorted nails

Here's How To Do It:

1. This screen will fit the top of the hot bed in activity 2-6.
2. If 50% shade is desired, place strips the width of the strip apart; if 75% shade is desired, place strips 1/2 the width of the strip apart.
3. Cut all pieces to proper size.
4. Assemble the 2 ends and sides, building a box 2" deep.
5. Nail strips on the 3/4" edge of the box the desired distance apart (Diagram 1).



LET ME WARM YOU UP

ACTIVITY 2-G

Here's Why:

Instruct student in construction of a hot bed and then have him use it for early development of plants.

Here's What You'll Need:

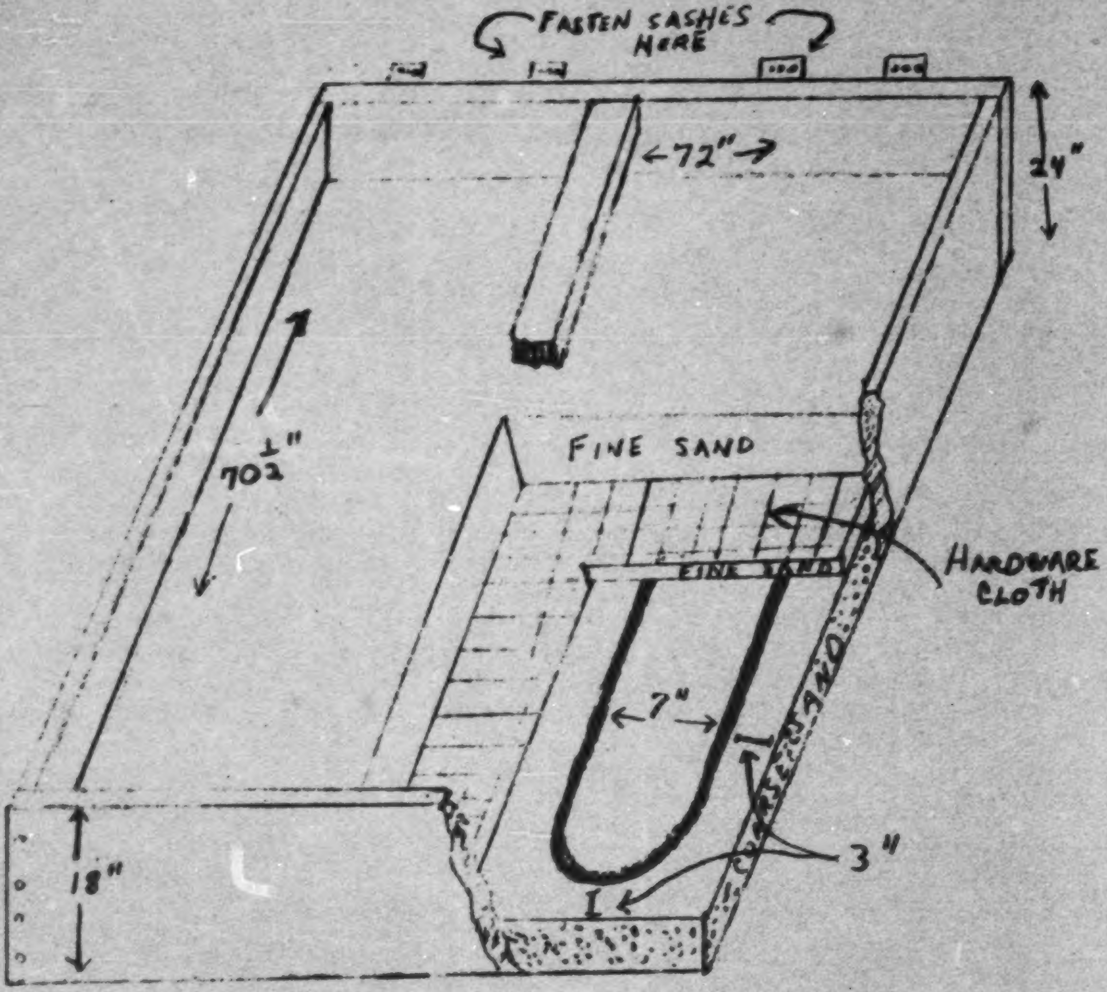
1. 18 cubic feet of coarse sand
2. 21 cubic feet of fine sand
3. 60 feet of electric cable with control
4. 6' x 6' section of 14" mesh hardware cloth
5. frame materials:
   side of box - 2 pieces 3/4" x 24" x 70 1/2"
   front of box - 1 piece 3/4" x 18" x 72"
   back of box - 1 piece 3/4" x 24" x 72"
   middle brace - 1 piece 3/4" x 2" x 70 1/2"
   sash - 2 3' x 6' standard sash with glass
   hinges, narrow cabinet - 4-1"

Here's How To Do It:

1. Build the frame by cutting the end pieces so that top surface slants from 24" to 18" (Diagram 1).
2. Either nail or screw the 2 ends to the front and back pieces (Diagram 2).
3. Now install center brace on top of box.
4. Handles may be added to open them with.
5. Treat wood with preservative copper naphtalene. (Don't use creosote---its fumes kill plants.)
6. Remove 12" of top soil from location of hot bed.
7. Place frame so that it is now 12" in the ground.
8. Now fill in around the outside of the frame with soil to make installation somewhat permanent.
9. Place coarse sand in lower 6" of the frame.
10. Place heat cable on top of sand, leaving 3" from the sides and placing the loops 7" apart.
11. Now place 1" of fine sand on top of the heating cable.
12. Install 1/4" hardware cloth on top of sand.
13. Place 6" more sand on top of hardware cloth.
14. Fasten sashes with 2 hinges each to back of frame so that you can open from front.
15. Place two handles on the sash for use in opening.
16. Connect control cable to heating cable.
17. Potted plants now can be placed inside for growing.

Here's Where You Can Find More Information:

1. Hotbeds, Home & Garden Leaflet No. 445, U.S.D.A.



REACH TO THE SKY

ACTIVITY 3-G

Here's Why:

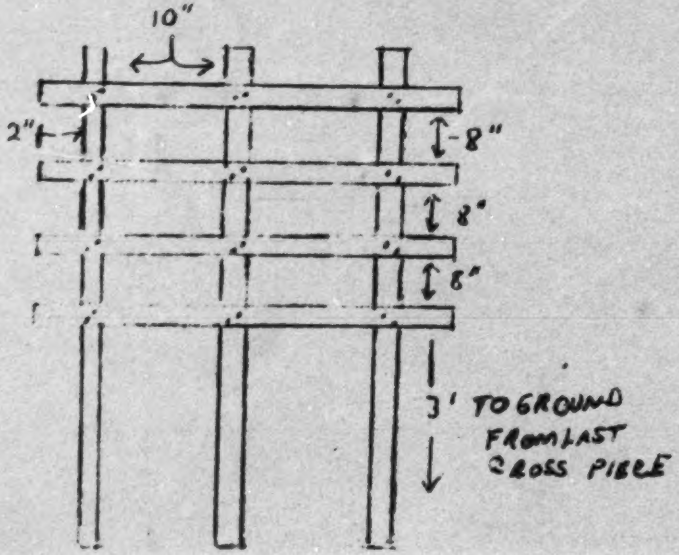
To instruct the student in the use and building of a lattice to support climbing plants.

Here's What You'll Need:

1. lumber:
   uprights - 3 pieces 3/4" x 2" x 8'
   slats - 5 pieces 3/8" x 2" x 24"
2. nails
3. hammer

Here's How To Do It:

1. Lay the 3 uprights parallel to each other 10" apart.
2. Now lay the six slats perpendicular to the uprights so that the bottom one is three feet from the end of the uprights. Now place the rest 8" apart up the uprights (Diagram 1).
3. Nail the slats with two nails at each joint to the uprights.
4. Paint or seal the wood and place in ground one foot from vine or climbing plant.
5. If small vines won't cling to the wood, then chicken wire can be added over the surface.



FLOWER ARRANGING

ACTIVITY 1-H

Here's Why:

To instruct the student in making floral arrangements.

Here's What You'll Need:

1. tape recorder
2. tape
3. filmstrip projector
4. filmstrip
5. a low, wide dish
6. frog - either metal frog or hardware cloth
7. clay to hold frog
8. flowers of four types:
   a. line
   b. moss
   c. form
   d. filler
9. knife

Here's How To Do It:

1. Set up recorder and projector for students.
2. Place filmstrip and tape in recorder.
3. Have materials on table.
4. Give materials to student and have him follow instructions.

Here's Where You Can Find More Information:

1. Flower Arranging, California State Polytechnic College.

CORSAGES

ACTIVITY 2-H

Here's Why:

To instruct the student in making a simple corsage.
NOTE: This presentation is designed for a class of students working individually and each doing the same activity.

Here's What You'll Need:

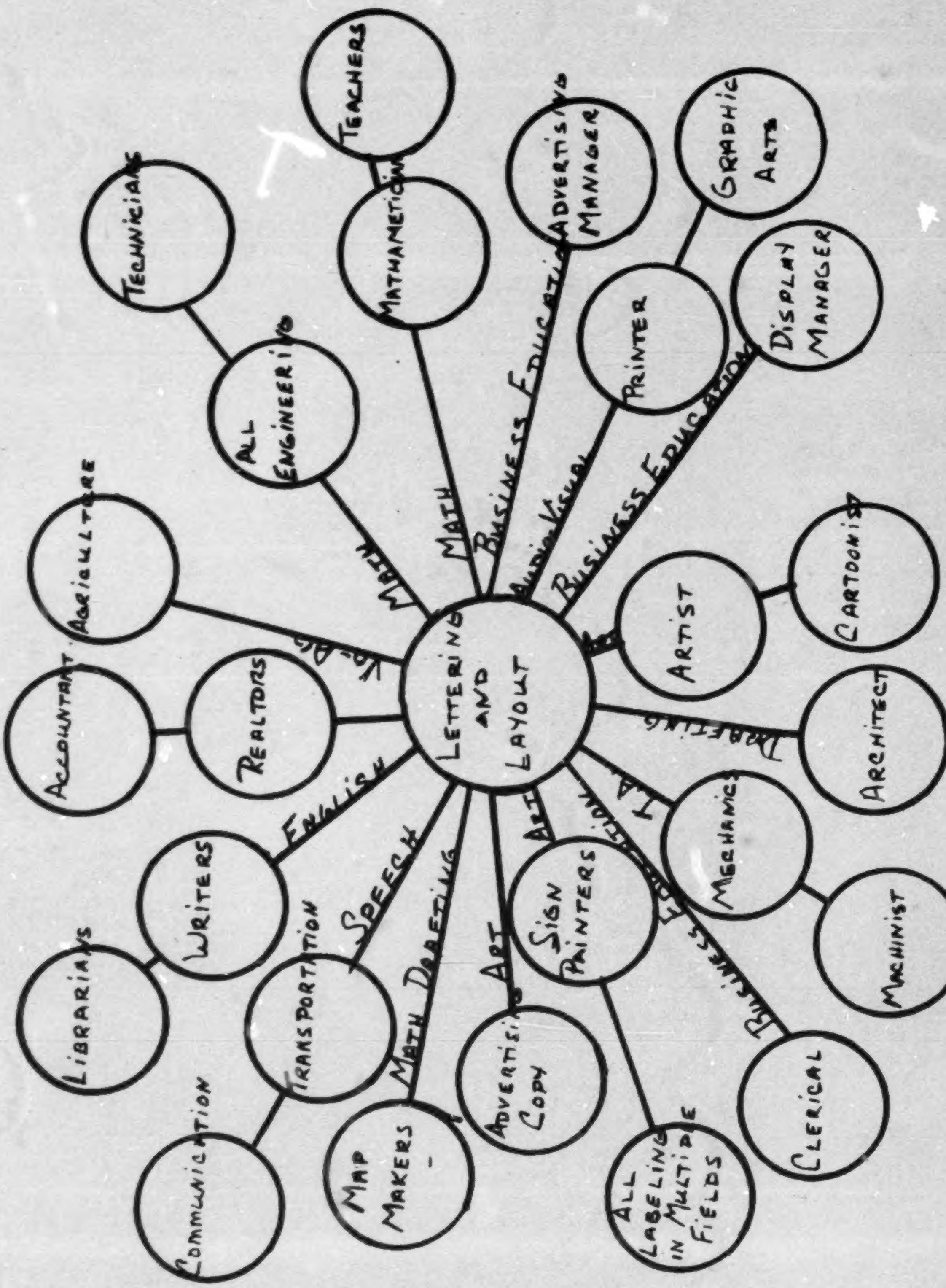
1. tape recorder
2. tape
3. filmstrip
4. filmstrip projector
5. carnations - 2 flowers
6. chenille wire 8" long, 2 pieces
7. fine wire 9" long
8. ribbon - several colors No. 3 single sided
9. scissors
10. wire cutters
11. sharp knife

Here's How To Do It:

1. Set up recorder and projector for students.
2. Place filmstrip and tape in recorder.
3. Have materials on table.
4. Give materials to student and have him follow instructions.

Here's Where You Can Find More Information:

1. Flowers to Wear, California State Polytechnic College.



Lettering and Layout—related curriculum areas and occupations.

LETTERING AND LAYOUT

Activity No.	Title	Activity
1-A	Let's Make Gothic Letters Out of Basic Lines	Making Gothic letters from basic lines
2-A	Wobblies and Wigglies Are A No-No	Drawing guide lines an learning use of a T-squ
3-A	The Tall and the Short of It	Drawing guide lines an drawing letters with f tip pens
4-A	Getting It All Together	Find examples of diffe types of lettering and glueing them in a scra book
1-B	Introduction	Preparing a poster
2-B	Design Your Cover	Scrapbook cover
3-B	Tell It With A Poster	Designing a Poster

Activity No.	Cost/Student	Grade
1-A	less than .10	4
2-A	.35	4
3-A	1.00	4
4-A	.15	4
1-B	.00	4
2-B	.15	4
3-B	.00	4

TERMINOLOGY

1. BALANCE - reflects to the viewer that the display is in symmetrical proportions.
2. CIRCLE - round figure.
3. FELT TIP PEN SET - wide point in assorted colors.
4. FULL ARM MOVEMENT - rather than move pencil with fingers only, move pencil with whole arm.
5. GOTHIC LETTERS - the lines forming the letters are all the same width.
6. GRAPH PAPER - suggested ¼" space.
7. ONE-STROKE - to complete all in one movement.
8. OVAL - egg-shaped circle.
9. SCRAPBOOK - to be assembled during the instruction as part of Activity 5-A.
10. T-SQUARE - 12" plastic.
11. VERTICAL - straight up and down.

INTRODUCTION

The instruction for the activities in Lettering and Layout are directed to the students. The presentation consists of 35 mm slides and a tape narration. The presentation is designed for a class of students working individually with each doing the same activity.

LET'S MAKE GOTHIC LETTERS OUT OF BASIC LINES

ACTIVITY 1-A

Here's Why:

Each student will learn the basic mechanics of lettering by practicing on the simpler forms.

Here's What You'll Need:

1. lead pencil
2. several sheets of unlined paper
3. 3 sheets of 1/4" graph paper
4. one set of assorted colored, water-soluble, non-toxic, wide tip, felt tip pens
5. 12" plastic T-square
6. heavy paper folder with clips to hold three-hole paper
7. glue
8. scissors
9. 11" x 14" piece of tag board

NOTE: Lettering includes four activities. Activity 1-A consists of three practice exercises. You may show the entire presentation at the beginning of the course, or you may stop at intervals after directions for each activity. Included in each activity is the script from the narrated tape.

Slides 1 through 9 are an "introduction".

Slide 10 starts Activity 1-A.

Slides 11 through 14 give instructions for Activity 1-A.

Overhead transparencies have been furnished so that each practice exercise may be projected for the student to refer to as he works. If no overhead is available, the slide could be projected on the screen. For Activity 1-A, the only tools required are a lead pencil and three sheets of graph paper for each student. Since these activities are very exacting and tend to get boring, some hand exercises or move-around breaks should be planned. Music will help break the monotony and give rhythm for work. Use of tools has been varied with each Activity to try to hold the interest of the pupil.

Here's How To Do It:

From the very beginning we are given a means to communicate--first by loud cries, later with words and sentences. We learn to letter these words and sentences, and then to write them for other people to read. Our books are words that someone has written or printed so that they could communicate to us hundreds of years after they are dead. Lettering plays an important part in this communication. By lettering a poster, we can tell a large number of people about an event or an idea we want them to know about. Sometimes a simple message someone "sees" will get their attention quicker and stay with them longer. By lettering a book cover, we can let people know a little of what the book is about, or make them interested in reading it to find out what it is about. By lettering a greeting card, and printing several copies, we can wish all our friends a Merry Christmas or a Happy Birthday. These are some of the reasons for learning to letter. And, of course, the better our lettering looks, the better we will get our idea across.

While we take a look at the few simple tools needed for our projects, let me say this: a lot of people think that only artists, or those that are artistically inclined, do good lettering. This is not true. Lettering is learned, just as handwriting is; and the more you practice, the better you will become. This is true of anything, isn't it? Let us take a closer look at our tools. The pencil, of course, is to start our practice. Later it will be used to outline letters very lightly so that we can go over them with a felt tip pen. The graph paper has lines for us to follow in making our lines straight, and our circles all the same size.

This is the first exercise in learning to letter simple block letters. Figures should be at least 1/2" high, or 3 lines of 1/4" graph paper. With your pencil and graph paper, draw each of the lines of the practice exercise. Leave 2 spaces between each line. Hold the pencil firmly between the first two fingers and the thumb. Firmly does not mean to choke it with an iron grip, but rather firmly enough that you have good control. Hold the paper in place with the left hand. Start the lines that stand up straight at the top. Pull down with the whole arm. Do not work the fingers only. Make each stroke in one movement. Do not stop or lift your pencil until you have completed the line. On lines that lay down, work from left to right. Make the entire line in one movement. Move the whole arm. Do not move the fingers only. Do not try to work too fast. Rest an instant after each stroke. You can fill a paper with lines many times; but if you do not work with care, you have gained nothing. With a second piece of graph paper, complete the second sheet of practice exercises. MOVE THE WHOLE ARM WITH THE PENCIL. You will be surprised how much straighter your lines will be. Slanted lines that are up and down should also start at the top and be one movement. The amount of slant is up to you, but each line should slant the same. Note how the lines fit on the graph paper in the illustration. Now for our circles. Take a third piece of graph paper and fill it with practice exercise, page 3. Make the circles 3 lines high. Skip two spaces between each line. On the first line of circles, the starting stroke is from top, down and around, Top, down and around - all across the paper. The next row of circles start with a stroke that goes up, over and down. Up, around and down - all across the paper. Move the whole arm, not just the fingers. Perhaps you could get a rhythm or ask the instructor to play some music. After you have completed this page, you have finished Activity 1-A.

WOBBLIES AND WIGGLIES ARE A NO-NO

ACTIVITY 2-A

Here's Why:

The student will be able to properly form Gothic letters with the use of a T-square and plain paper.

Here's What You'll Need:

1. slides 18-28
2. paper
3. ruler
4. pencil
5. T-square

Here's How To Do It:

In order to use our lettering, we must learn to draw guide lines for our letters. After all, we cannot go on using graph paper for everything. It is difficult to draw straight lines that are an equal distance apart without some very careful measuring. Our task will be made easier with a T-square. This is a plastic T-square 12" long. It may be purchased at most stores that sell school supplies. The small attachment at the end of the ruler makes the ruler resemble a "T". It is placed on the ruler so that a "square" corner is formed. Thus the name "T-square". By placing the attachment, which we will call the "T", so that it is straight along the edge of the paper, the ruler will go across the paper an equal distance from the top all the way across. More straight lines an equal distance apart can be drawn by simply sliding the T-square up or down along the edge of the paper. It is easier to do if you have a tablet or several pieces of paper so that the "T" will have an edge to catch on.

Place the "T" along the left edge of the paper with the ruler near the top of the page. With your pencil draw a line from left to right all the way across the paper. Do not let the T-square slip or your line will be crooked. Hold the pencil straight up and down while you are drawing. A "wobbly" pencil makes a "wiggley" line. There is no room for "wobblies" and "wigglies" in our lettering. Draw one line along the top of the ruler and one line along the bottom. When you remove the ruler you will have two lines about an inch apart all the way across the peper. Slide the T-square down a little space and draw two more lines - one along the top of the ruler and one along the bottom. Do this until the page is filled with lines. These will be the guide lines for the capital letters in our next practice. The letters will be as high as the two lines that are about an inch high, or the ones we drew along the top and bottom of our ruler. There should also be a line going down the middle between these two guide lines to act as a guide for the middle of letters such as H, E, F, and X. One of the main rules of lettering is to make all the letters uniform. Uniform means "all the same" as much as possible. So for the middle line, let's go back to the top of the page. With the "T" lined up straight against the edge of the paper, draw a dotted line down the center of each top and bottom line we drew before.

Now we are ready to start drawing capital lines, using the guide lines to make each one as straight and neat as possible. Use a black felt tipped marker with a wide tip for making these letters. The caps of these markers are made to fit on the bottom of the marker. It is a good habit to place the cap there while you are using the marker. The cap will not become lost, and it will be handy to replace so the marker will not dry out. Felt tipped markers are very handy to use. Some are water soluble, which means their stains may be washed off with water. They draw a nice dark line, and do not have to be filled. However, they do dry out. The caps, or lids, should be replaced as soon as you are through using them. If they are allowed to dry out, they may be used again by soaking the tips in water. But they are never as good again as they were before. ALWAYS REPLACE CAPS AS SOON AS YOU GET THROUGH USING THE MARKER. On the paper filled with guide lines, draw a capital letter of each letter in the alphabet. Use what you learned during the practice exercises: make lines with one stroke moving whole arm with the marker, not with fingers only. Make letters until the page is filled.

THE TALL AND THE SHORT OF IT

ACTIVITY 3-A

Here's Why:

The student will be able to form upper and lower case Gothic letters.

Here's What You'll Need:

1. slides 29-36
2. felt tip marker (set of colored)
3. paper
4. pencil
5. T-square

Here's How To Do It:

Our next practice will be with small letters. Again we draw some guide lines. Take an unlined piece of paper, the T-square, and the pencil. Place the T along the top edge of the paper with the ruler pointing down toward the bottom of the page. Starting at the top of the page, place a dot with your pencil every 1 inch all the way down the page. Move the T to the left side of the paper and place it so the top of the ruler is even with the first dot on the page. Draw a line along the top of the ruler from left to right across the page. Do this with each dot. The paper is now filled with lines 1" apart. Now, still using your T-square, go back to the top of the page. Draw a line from left to right half-way between the first two lines on the page. Draw a middle line in every other space. That means you will draw a middle line, then skip two lines, then draw a middle line again, so that when you finish, you will have two lines close together, and two lines 1" apart, then two lines close together again.

With your black felt tip pen make the small letters of the alphabet. Make the letters in the wider space, or the one that is 1" wide. If you draw a letter such as a "b" or an "h" that has an extension on it, draw the extension up to the next line above.

When you draw a letter which extends below the line, such as the "p" and "q", draw the main part of the letter in the wider space and draw the extension to the next line below.

CONCLUSION: The saying "Practice Makes Perfect" is certainly true in lettering. If some of your letters are leaning backwards or falling on their faces, practice will straighten them up. This type of exercise tends to get very boring; therefore, the use of the graph paper, the T-square, the pencil and then the felt tip pen were variations to try to hold the interest of the pupil.

GETTING IT ALL TOGETHER

ACTIVITY 4-A

Here's Why:

The student will cut out definite types of print and assemble in a scrapbook for future reference.

Here's What You'll Need:

1. publications to be cut
2. scissors
3. cardboard folder with clips
4. 12 sheets of paper, 3-holed
5. glue
6. felt tip pen
7. pencil

Here's How To Do It:

You have been lettering capital and small "block" letters known as "Gothic" letters. There are many, many types of letters. Some have names and others are just variations someone made up to suit their needs. It would be almost impossible to try to learn them all. One solution to this is to start a scrapbook. Samples of lettering are everywhere you look - in newspapers, magazines, on food cargons, and on and on. Watch for these and cut as many of them out as possible. Paste them in a scrapbook. Anytime you need an idea for lettering, look in the scrapbook and pick out a style that suits your needs.

Scrapbooks can be purchased or one can be made with very little effort. From a school supply store, or from your teacher, get a heavy paper folder that has a flap on the inside. This flap contains three holes with clips through them. You may use paper that has holes already punched, or you may use a paper punch and punch your own. If you punch your own, measure the paper with the clips in the scrapbook to make sure you get the holes in the right place. Take several pieces of paper with the holes punched. Ten sheets make a good start. More may be added as you need them. Straighten the copper clips. Place the clips through the holes in your paper. Bend the clips down again. Now you are ready to past in the samples of lettering that you have collected. Continue adding to your collection so you will have many ideas to choose from. Tools needed for this exercise are: scrapbook folder, unlined paper with three holes punched. If student is to punch the holes himself, a paper punch will be needed. Blue and scissors, old newspapers, magazines and other cutting stock are also needed. This is an activity that can be continued at home by student.

INTRODUCTION

ACTIVITY 1-B

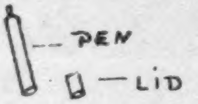
Here's Why:

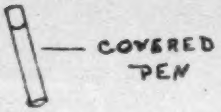
The student will be introduced to the procedures and tools needed to construct a poster.

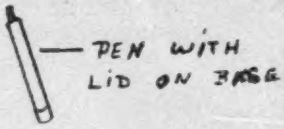
Here's What You'll Need:

1. pencil
2. paper
3. T-square
4. a set of various colored felt tip pens
5. the item we plan to design

Felt tip pens are very handy to use. They do not leak or break. They make a nice dark line. But THEY DO DRY OUT. Care should be taken to close each pen when you are through using it. Most of the pens have the base of the pen so designed that the lid will fit right on there. Get in the habit of placing the lid on the base and when you are through, replace it on the pen.






PEN WITH LID ON BASE

The pencil and paper are for a draft of your layout. A draft is a rough sketch. The finished project should not be started until you have planned and drawn several rough drafts. This way, you can try out several ideas and arrangements before deciding on the best one.

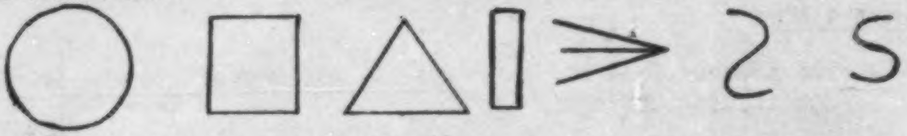
Here's How To Do It:

"Layout" is a term used for the design or arrangement that you decide to use for a visual. Remember we described a visual as a means of communication. We catch a person's eye with a "layout" and cause them to "see" and "read" what we have to say. This is "visual" communication. Sometimes a message someone "sees" will get their attention much more, and they will remember it longer than one they "hear".

A "Layout" should be designed to get immediate attention. It should be bold, simple, and yet convey the message it was designed to tell. First, of course, we should decide what the message is. If it is a bookcover, what is the title? If it is a poster, what information do we want on it? Who are the people we want to look at it? If it is a card, how can we make it attractive and meaningful? Magazines are full of advertisements that highly paid professionals have designed to get your attention to try to sell you a product.

It was mentioned before that the design should be bold and simple. It should also be attractive.

From your scrapbook, you should be able to choose several different types of lettering. But let's not limit ourselves to lettering. Shapes and lines may be used also.



Pictures and sketches may be used, but care should be taken to keep them quite simple. Color also plays an important part.

There are three words that guide us to good layout: (1) attract, (2) interest, and (3) inform. As you work with your design, keep asking yourself, "Does it attract?" "Is it interesting?" "Does it inform?"

Take into consideration the colors you are going to use. Bright colors attract more attention than dull or soft colors. Some bright colors are red, green, orange, blue and purple. Some soft colors are yellow and pink. Dull colors are gray, and some shades of brown. When placing these colors on paper, it is best not to color one over the other. This changes the shade of the color and dirties the tip of your pen. If it is necessary to put one color over another, always place the darker color over the lighter one.

DESIGN YOUR COVER

ACTIVITY 2-B

Here's Why:

The student will make a layout, rough draft, and a finished design for the cover of his scrapbook.

Here's What You'll Need:

1. pencil
2. paper
3. felt tip pens
4. scrapbook made in Activity 4-A
5. T-square

Here's How To Do It:

For a start, make a layout, rough draft, and then finished design for the cover of the scrapbook containing lettering and sketches that you made as a project in Activity 4-A. You may use the word "lettering", or your own name, or just some shapes, or a combination of all of these.

Use a T-square to get the items on straight and square to the paper unless you want them on a curve or at a slant.

TELL IT WITH A POSTER

ACTIVITY 3-B

Here's Why:

The student will be able now to design and make a poster.

Here's What You'll Need:

1. pencil
2. paper
3. scrapbooks from Activity 4-A
4. felt tip pens

Here's How To Do It:

Now let's design and make a poster. There are several contests involving posters, such as "Keep America Beautiful", Hospital Week, and the local Fair. Ask your instructor about these, and perhaps you can enter your finished product in a contest.

1. Choose the message. For example: There will be a Boy Scout meeting next Wednesday, August 2, 1971, in the Youth building at 7:30 P.M. Parents are invited to attend.
2. Keep it simple: Boy Scout meeting, Wednesday, August 2, 1971, Youth Building, 7:30 P.M., parents invited.
3. Choice of lettering, colors, and whether or not there should be a picture included.

Continue with the plan, making one or more rough drafts and the finished product. Remember who you will want to attract with your poster: boys and their parents. Try to think of a selection that would make them stop and look. Use your scrapbook on letters for ideas. Draw your design on your poster first "very lightly" with a pencil, remembering that most of it will be erased later. Most people see a poster as they go by, "on the run" so to speak. You must catch their eye and cause them to read the rest of your message. But you must keep it simple, because they will not pause for long. Remember the three words: attract, interest, inform. Check for all three as you work.

GREETINGS FOR ALL OCCASIONS

ACTIVITY 4-B (optional)

Here's Why:

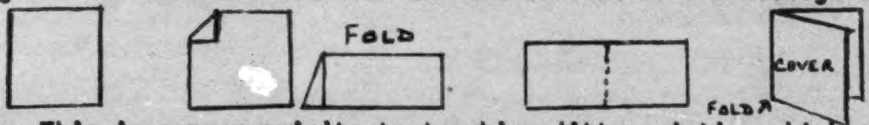
The student will be able to design and make a greeting card.

Here's What You'll Need:

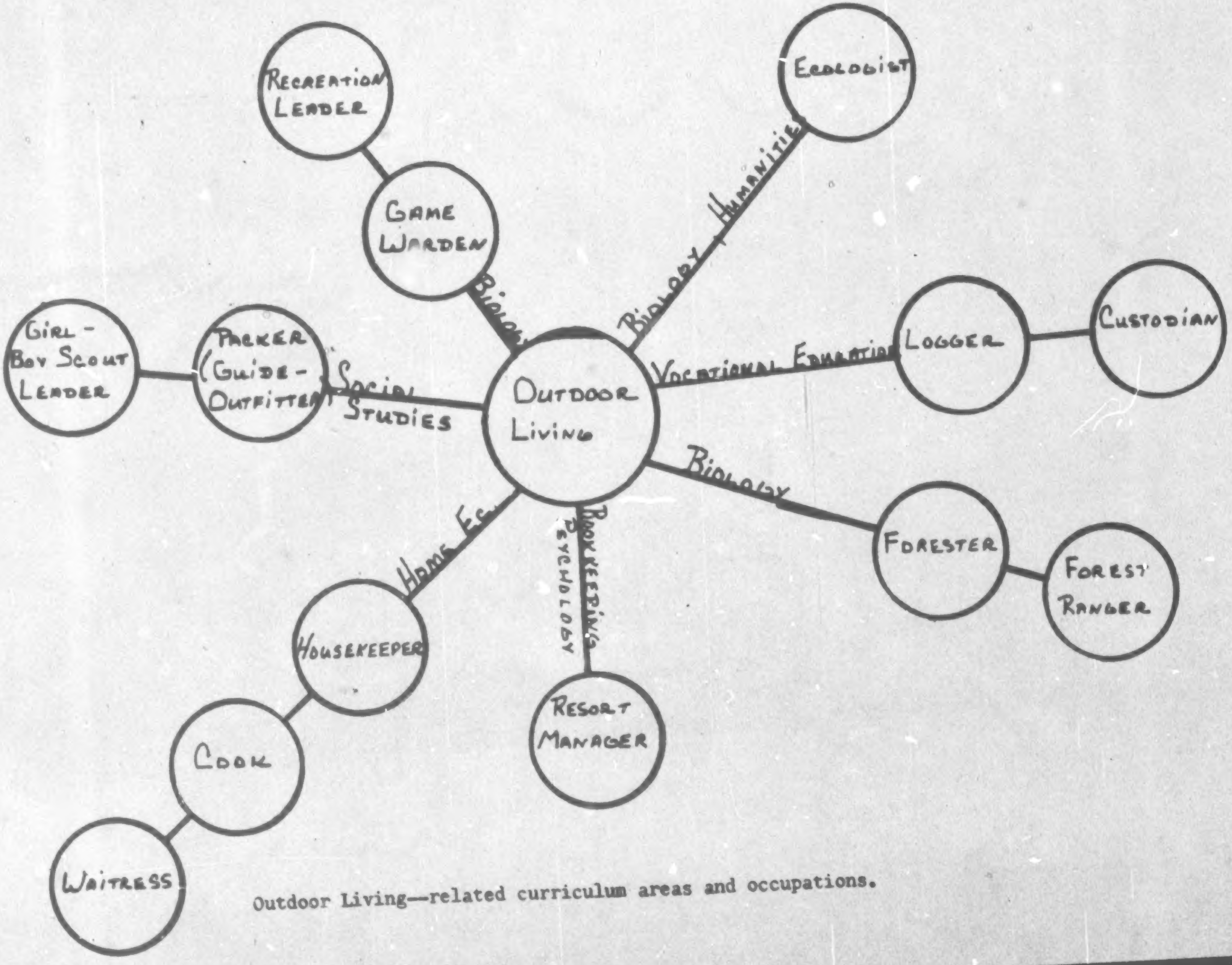
1. one piece of typing paper
2. one set of colored felt tip pens

Here's How To Do It:

Do this on a piece of plain typing paper. First fold the paper in half by bringing the top of the sheet down to touch the bottom of the sheet and running your finger along the fold. Then fold the sheet again from left to right. The left side should go over to the right side and the fold made. If the sheet has been folded properly, it will open like a book. Put the design of the card on the cover and the content of the message on the inside.



NOTE: This is a prerequisite to teaching ditto printing which can be taught in a later grade, or as a revision to this lesson plan.



Outdoor Living—related curriculum areas and occupations.

*OUTDOOR LIVING

Activity No.	Title	Activity	Cost/Student	Grade
1-A	Keep Our Outdoors Beautiful	Camp-out	$4.50	6

*Refer to Activity 1-G of Culinary Arts

KEEP OUR OUTDOORS BEAUTIFUL

ACTIVITY 1-A

Here's Why:

The student will experience the preparing for and participating in an outdoor living situation.

Here's What You'll Need:

1. The student will need to supply his own outdoor type sleeping bag unit. In most cases this will include the sleeping bag, liner, air mattress and ground cloth.
2. The student will provide his own personal gear which can be carried in a gym bag. The personal gear will include a minimum of clothing, but to include a warm sweat shirt and water repellent jacket, cap, one change of clothes, insect repellent, and a pair of hiking shoes.
3. Toilet gear includes towel, wash cloth, soap, tooth paste and brush and lotions.
4. Other equipment:
   2-8 man tents
   12-2 man tents (plastic tube type)
   1 grill (18 x 20)
   1 griddle (12 x 24)
   2 outdoor privy units
   3 waste units
   cooking utensils
   eating utensils for 25
   6 - 5 gallon water containers
   1 - 8 gallon water cooler
   3 - 5 gallon water buckets
   1 shovel
   1 axe
   1 piece plastic or canvas 10 x 20 (for over cook area in case of rain)

Have You Done This Yet?

1. Activity 1-G of Culinary Arts.
2. It will be necessary for the counselor to develop a check list for each student which can be posted and completed as each step goes along: for example, parent permission slip, signed and returned; availability of sleeping bag unit and any other items.

***Here's How To Do It:**

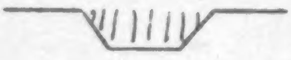
A. Planning and Orientation:
   1. Establish home room groups to be completed early in September.

*We suggest a qualified instructor teach this activity and also one experienced student aide for each group of 10 students.

2. One week in advance discuss the unit with the students.
    a. Ask for confirmation of sleeping bag unit.
    b. Send to the parent a letter of explanation along with the parent permission slip. This slip will include any special requests or information (allergies or noted situations).
3. Preliminary presentation by counselor in guidance and writer of culinary arts.
4. Advise students that they will provide or bring no food items. A basic and balanced menu will be served. Snacks will be provided.
5. First Aid unit will be provided. Orientation will include a presentation by County Health Nurse.
6. Classroom orientation to include:
    a. Sleeping bag units
    b. Tents
    c. Sanitary facilities - construction of privy
    d. Safety
    e. Group Rotation system: Camp Group - Cooking - Nature. Divide class into three groups, select a leader.
    f. Each group to plan and provide some kind of recreation (musical, outdoor games, etc.).
    g. Wood for cooking and camp fire and cutting procedures
    h. How to build a fire and extinguish
    i. Dish washing procedures
    j. Equipment
    k. Food storage
    l. Area for wash facilities
    m. Fire protection measures
    n. Cautions:
        (1) Cooking
        (2) Injury
7. Outdoor Living Day
    a. Travel by bus - leave following lunch.
    b. Establish camp on Kirby Creek in the Shonkin Mountains.
    c. Evening meal
    d. Breakfast
    e. Lunch
    f. Detailed list of planned learning situations with time schedule (these will vary)
    g. Following lunch, break camp and return to Fort Benton, by closing of school day.
8. Evaluation card for each to complete on return. No advance information or discussion by the students.

B. At Camp Site:

1. Camp Fire for cooking over grill (refer to bottom of last page)
    a. Select cooking area.
    b. Dig a fire box area the size of the grill, one foot deep and one foot longer than the grill (18" x 30").



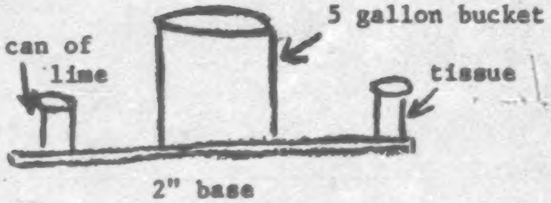
SIDE VIEW

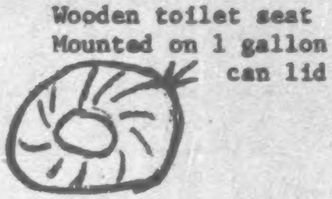
(PILE DIRT ON ONE SIDE)

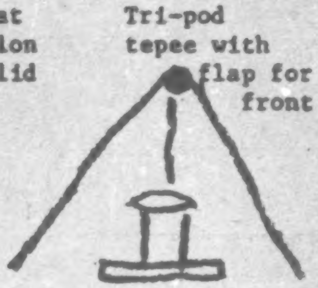
TOP

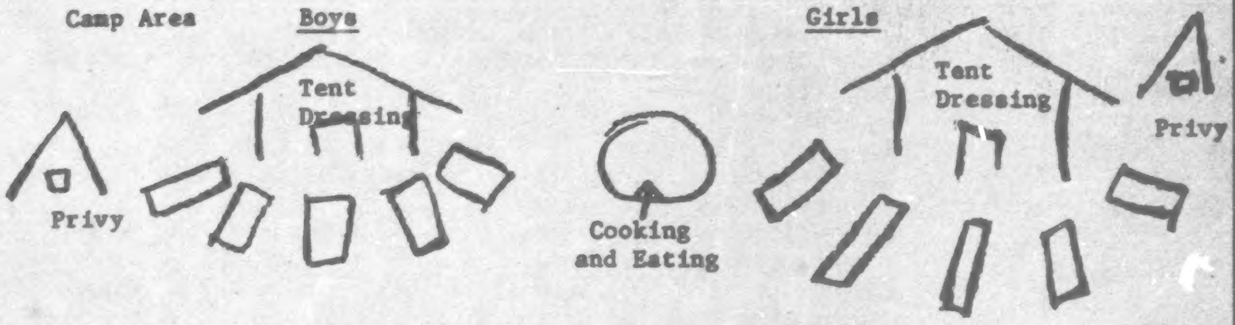
- c. Build a good fire that will provide a set of cooking coals.
- d. As fire dies down, place grate over the fire box--use the legs to set and level. Set to a depth of about 3" above the ground level.
- e. Grill and other cooking utensils can now be placed. Kettles that are to be washed should be coated on the outside with liquid soap.
- f. Wood supply should be no problem.

2. Outdoor privy
   - a. Locate one in boys area and one in girls area away from camp site.
   - b. Unit will include a stool section, seat, privacy tepee, and supplies (toilet tissue and lime for disinfectant.)
   - c. Plastic sack liner in cardboard box for waste. All waste will be packed out.
   - d. Individuals sleep by two's. If necessary, set up 2-person sleeping units - otherwise sleep under the stars.









NOTE: Approximate Cost Breakdown:

1. 4 adults, 3 student aides and 20 students.......$225.00
2. Rental and permanent purchase.................. 75.00

$300.00

Item will include capital outlay of approximately $37.50 of which items will be a start of permanent outdoor unit; approximately $37.50 for rental, which could include sleeping bag units, cooking and serving units, tents and camp equipment, water container. Furnished by District #1:

Bus...$ 63.00
(70 miles round trip)
1 car....................................... 6.30

3. Take along:
Water cooler and ice
½ gallon water for consumption per individual
Use creek water for washing and fire safety

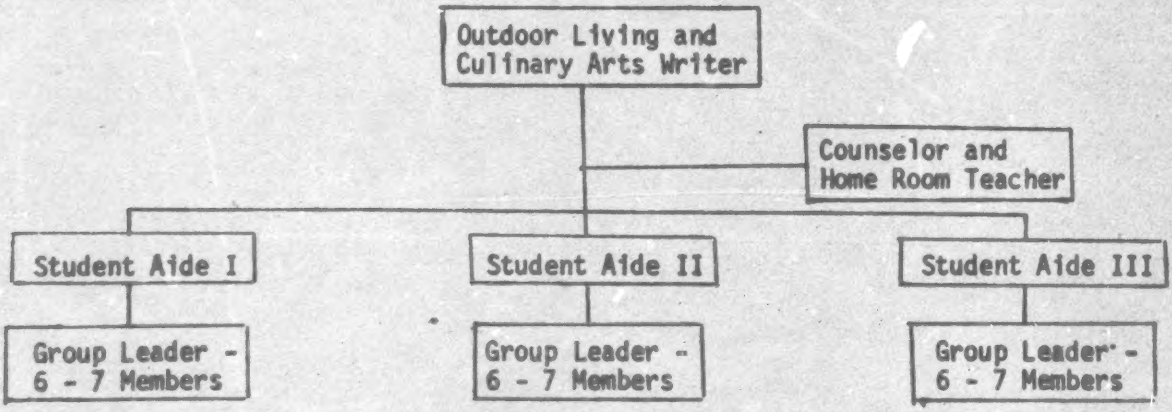
Don't:

1. Allow students to provide food items (candy, gum, etc.).
2. Leave immediate camp area without permission of group student aide and never leave alone.

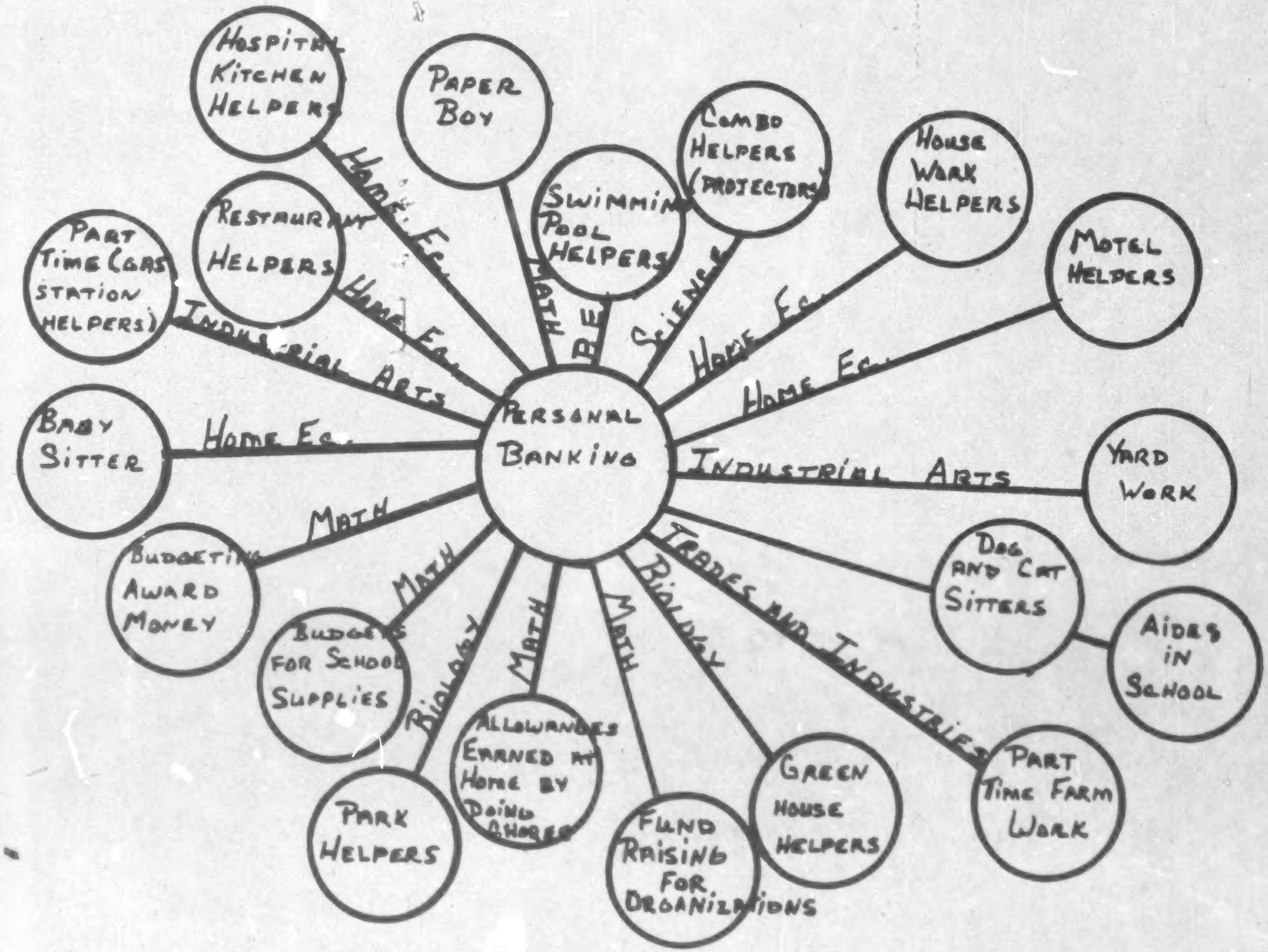
Here's Where You Might Find More Information:

1. County Agent's Office.
2. Library.
3. County Health Nurse

Diagram:


Outdoor Living and Culinary Arts Writer
Counselor and Home Room Teacher
Student Aide I
Student Aide II
Student Aide III
Group Leader - 6 - 7 Members
Group Leader - 6 - 7 Members
Group Leader - 6 - 7 Members

The groups will be rotated from cooking, to camp setup or teardown, to nature study in hiking. This would be a time that student aides work in their specialty. This would allow the adults to work where they are needed the most.



Personal Banking--related curriculum areas and occupations.

PERSONAL BANKING

Activity No.	Title	Activity
1-A	Money, Banking & You	Using the checkbook
2-A	Are You In The Know	Practice
1-B	Budgets Make Life Easier	Use of checkbook and budgeting money

Activity No.	Cost/Student	Grade Level
1-A	less than $.25	5
2-A	less than $.25	5
1-B	less than $.25	6

NOTE: Since this is the first year for implementation, it will be necessary for the sixth graders to cover fifth grade activities. They will also do activity 1-B which will be expanded in the 1971-1972 revision.

VOCABULARY STUDY GUIDE

1. COMMERCIAL BANK--a business that deals with money matters and its main functions; includes (a) receiving deposits of money, and (b) lending money to individuals or business firms.

2. CHECKING ACCOUNT--an account with a bank that permits the individual or business firm to take out cash by issuing a check.

3. SAVINGS ACCOUNT--an account with a bank on which a bank pays interest to individuals or firms who have placed money with a bank for the main purpose of earning additional money by leaving it with the bank for a period of time.

4. SIGNATURE CARD--a card that you sign when you open an account, either checking or savings. You must sign this with a written signature using your complete name or the way you usually sign your name (including initials).

5. DEPOSITOR--a person or firm putting money into a savings or checking account.

6. MAKING A DEPOSIT--the placing of cash with a bank.

7. DEPOSIT SLIP OR TICKET--the form you fill out listing the money you are placing with the bank to be added to your checking account.

8. SIGNATURE--your name as you write it (not printed).

9. BANK TELLER--a bank employee who receives and pays money. They are at the teller cages located in the main part of the bank.

10. SALARY--the money you receive for work or effort put forth for someone.

11. REGULAR SAVINGS--placing money with the bank in your savings account at regular time each month. For example, when you receive your salary, you would take a certain amount of the salary and place in your savings account.

12. BUDGET--using money wisely means planning to save and planning to spend. A budget is a plan of spending and saving; it is a road map for you. A budget can help you get the best things for you and your family. It tells you ahead of time whether or not you can buy what you want.

13. SERVICE CHARGE--this is a small amount that the bank charges you for handling your checking account. It appears on your bank statement each month.

14. WITHDRAWALS--a check is a way of withdrawing or taking money out of your checking account. You can withdraw money from (take money out of) your savings account, too.

15. INTEREST--the money a bank pays you for using your money that you have placed in a savings account for a period of time. This amounts to about 4% or 5% each year. Example: If you have $100 in a savings account and leave it for one year, you would get $5.00 interest if the rate was 5% for a year.

16. EXPENDITURES--amounts of money you pay for anything (including food, rent, clothing and others). These items are often called necessities.

MONEY, BANKING AND YOU

ACTIVITY 1-A

Here's Why:

The student will learn the proper procedure for depositing money and writing checks.

Here's What You'll Need:

1. filmstrip with tape
2. simulated signature cards (2 for each student)
3. simulated deposit slips (6 for each student)
4. simulated checkbook with stubs (12 for each student)
5. simulated bank statement for problem (1 for each student)

Here's How To Do It:

1. Use filmstrip to show the reasons for money and what has been used as money in the past.
2. Demonstrate on overhead the filling out of a signature card. Each student will then fill out one for himself.
3. Demonstrate on overhead the filling out of deposit slip. Each student will then fill out one with checks of $42.00, $38.40, and $67.56; cash of $37.50; total deposit should be $185.46.
4. Demonstrate the writing of a check and filling out stub on overhead. Let each student write a check for $35.00 and fill out stub.
5. Students will then do practice exercise of writing checks and filling out stubs.
6. Study the vocabulary guide and give one to each student.

ARE YOU IN THE KNOW ABOUT BANKING?

ACTIVITY 2-A

Here's Why:

Each student will utilize procedures from Activity 1-A.

Here's What You'll Need:

1. quiz on vocabulary study guide
2. checking account practice problem
3. simulated check book with stubs (5)
4. simulated deposit slips (2)
5. Activity 1-A

Here's How To Do It:

1. Give matching quiz on study guide.
2. Discuss quiz letting students grade own papers and provide correct answers.
3. Give each student the practice problem.
4. Go over practice problem giving each new balance and final balance.
5. Give summary for bank services.

Here's Where You Might Find More:

1. Using Your Money Wisely, American Bankers Association.
2. Know Your Money, U. S. Secret Service.
3. Consumer's Primer on Money, A Dale Tussing.

PRACTICE PROBLEM FOR ACTIVITY 2-A

1. Fill out a signature card and make deposit slip for a deposit of checks of $240.00, $160.00, and $38.00, and cash of $62.00.
2. Enter the deposit on first check stub as the opening balance.
3. Write a check to Montana Power for the electric bill of $8.57. (Use today's date.)
4. Write a check to Mountain Bell for the phone bill of $12.94.
5. Pay James E. Smith $70.00 for month's rent.
6. Received a check from Henry Davis Co. for week's salary of $65.00. Make deposit.
7. Pay Bennett's Grocery $38.76 for food bill.
8. Pay Pioneer Mercantile $26.84 for clothes purchased.
9. Sold Myron Scow an old refrigerator for $35.00. Deposit his check in the bank.
10. Purchased car insurance from Pioneer Insurance Agency for $110.50. Write check.
11. Paid Farmer's Union for fuel oil. Bill is $82.00. Write check.
12. Received a bill from Central Service for repair on automobile for $16.70. Write check.
13. Purchased a new television set from Gambles for $179.50. Write check.
14. Sold old TV set to Bill Marten for $35.00. Deposit check in bank.
15. Bank has charged you $1.80 for their services. Deduct this charge from the balance on the last check stub.
16. What is your final balance? It should be $87.39.

BUDGETS MAKE LIFE EASIER

ACTIVITY 1-B

Here's Why:

Each student will learn the proper procedures in writing checks, making deposits and preparing a family budget.

Here's What You'll Need:

1. budget sheets (2 for each student)
2. budget problem

Here's How To Do It:

1. Explain a budget.
2. Explain why people use a budget.
3. Assume the family income is $5,000 per year; expenditures are food 30%, clothing 15%, rent 20%, other 5%, entertainment 10%, savings 20%.
4. Give students budget problem with additional budget sheet to be done on his own.

Here's Where You Might Find More:

1. Same as 1-B.
2. Budgets Make Life Easier, Montana Bank, Great Falls, Montana.

Name________________________

REVIEW OF PRACTICE PROBLEM 1-B

1. Assuming there is a $200.00 balance in your checking account, write a check to Coast-to-Coast Stores for the amount of $50.00. Date this August 20.

2. Write another check for $15.00 to Pioneer Mercantile. Date this for September 8. Compute the balance.

3. Assuming you made a deposit September 15 for $25.00, enter the amount under deposit and adjust your balance.

4. Write a check for the amount of $60.00 to Gambles on September 20. Compute the balance.

Answer:________________________

BUDGET PROBLEM

Mr. Smith makes $600.00 per month. In addition to this, he also receives $50.00 per month from an investment. The family has expenditures of 1/5 for food, 1/5 for clothing, 1/5 for rent, 1/20 for other expenses, and 1/10 for entertainment. How much is left at the end of the year for savings? There are twelve months in a year and all expenditures are for one year.

FAMILY BUDGET

Income:

Salary (Annual) $__________
Other $__________
Total $__________

Expenditures:

Necessities:
Food 1/5 $__________
Clothing 1/5 $__________
Rent 1/5 $__________
Other 1/20 $__________
Entertainment 1/10 $__________
Total $__________

Savings: $__________

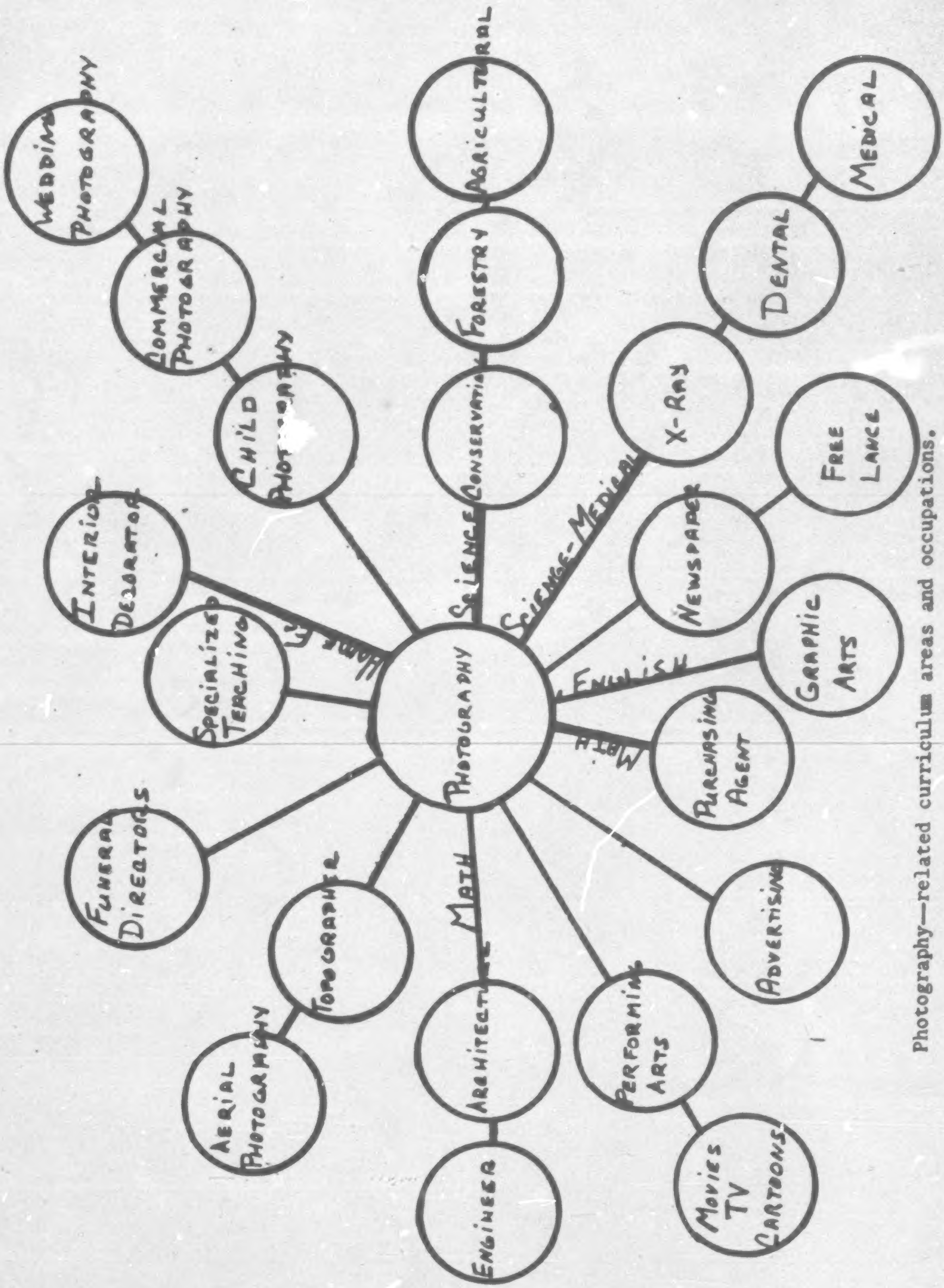
SUMMARY

Banks provide services for the individual, family, business, and government. They provide personal loans, safe deposit boxes, checking account and savings account services.

Banks serve the government by selling U.S. Savings Bonds and regulating and distributing currency for everyday transactions.

They serve farmers, businessmen, and merchants by providing money for production of goods which provide jobs.

Banks are involved in 90% of all payments made in the United States. The banking system is necessary for our country's prosperity and progress.



Photography—related curriculum areas and occupations.

PHOTOGRAPHY

Activity No.	Title	Activity
1-A	What's It All About	Parts and operation of simple camera
2-A	Pictures of the Times	Taking pictures with an instamatic
3-A	Working In The Dark	Developing a black and white roll of film
4-A	From Negative to Print	Making contact prints of each negative
5-A	Blow It Up	Making black and white transparencies
1-B	Color Me Pink	Using an instamatic camera in taking colored slides
2-B	"One Picture is Worth.."	Slide story
3-B	Stir Carefully	Mixing color chemicals
4-B	A Long Negative	Developing a roll of colored slide film
5-B	Large Projections From Little Pictures	Mounting the slides

Activity No.	Cost/Student	Grade
1-A	.35	5
2-A	.60	5
3-A	.20	5
4-A	.20	5
5-A	.20	5
1-B	.35	6
2-B	.10	6
3-B	.30	6
4-B	.10	6
5-B	.15	6

WHAT'S IT ALL ABOUT

ACTIVITY 1-A

Here's Why:

The student will be able to understand the operation and function of the various parts of the simple camera.

Here's What You'll Need:

1. an instamatic-type camera for each four students
2. one roll of black and white verichrome film, size 126 for each student

*Here's How To Do It:

1. Divide students into five groups of four students.
2. Have group preview Diagram 1 for the basic camera.
3. Each group of four students take the camera for their group and work with it without film so each will know the function of all the parts of the camera shown on Diagram 2.
4. Have the group practice placing film in the camera. Caution: Don't force film--it should go easily into back of camera. Note Diagram 3-a. Close camera back.
5. Viewfinder operation. Compose and see all the things in the viewfinder before taking the picture. See Diagram 3-b.

Here's Where You Might Find More Information:

1. My Hobby is Photography, Don Langer, Elem. Library, High School Library.
2. Adventures With Your Camera, Unit 1, 4-H Photography Unit.

*All diagrams are on file in the counselor's office. Copies are available. This applies to all activities in the photography unit.

PICTURES OF THE TIMES

ACTIVITY 2-A

Here's Why:

To have students take pictures with an instamatic-type camera of these three topics: scenes, things, persons.

Here's What You'll Need:

1. Plan a scenic-type picture. This can have people in it but the scene should dominate. An example of such a picture would be over at the courthouse taking a picture of the courthouse; trees showing, and maybe someone coming down the steps. Also the school grounds could be used. Playground during recess--remember not too much action or people will be blurred. TAKE FOUR PICTURES.
2. Take a picture of some thing or object. This could be a still-life type picture. Put some fruit or vegetables around a vase or basket, flowers in a vase, toys set up in a sand pile, etc. TAKE FOUR PICTURES.
3. A picture of a person within 4 or 5 feet. Better yet, take a picture of a fellow student at the window, light from outside shining on one side of his face--don't shoot directly at the outside but in front of him. Diagram 5. TAKE FOUR SUCH PICTURES.
   A picture of an older man or woman with wrinkles face--this shows years of hard work and character. TAKE FOUR SUCH PICTURES.
4. Instamatic camera and one roll black & white film, size 126 verichrome.

***Here's How To Do It:**

1. SCENIC PICTURES: Each group select some area to work at, such as the courthouse, playground, Old Fort Park, Front Street. Each student take four scenic pictures of this area (people can be in the picture but not close-up of them). PLEASE NOTE: There are 12 pictures on each roll; therefore, three students will be able to take their four pictures on one roll.
2. PICTURES OF THINGS: You may use flowers in vases, flowers placed by or on rough drift wood, figureines can be in the picture. Plan to take the picture of the object within four feet. Vegetables placed around basket, etc.
3. PEOPLE: Take these pictures at about 4 to 6 feet. Example: picture of a person working, sales clerk checking grocery order, mechanic working on motor, picture of an older man or woman with wrinkled face that shows years of hard work, child, teacher, etc. Have only one person in each picture. Take four such pictures.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of four students.

Here's Where You'll Find More Information:

1. "Exploring Photography", Unit 3, 4-H Photography, see County Agent at Courthouse, pp. 23, 27, 29.
2. My Hobby is Photography. Don Langer, Elementary and High School Library.
3. Fun With Your Camera, Mae and Ira Freeman, Elementary and High School Library.

WORKING IN THE DARK

ACTIVITY 3-A

Here's Why:

To have each student develop a roll of black and white verichrome film to produce a negative of pictures they have taken.

Here's What You'll Need:

1. a black changing bag for handling the film in total darkness
2. a daylight developing tank, reel, stirring rod, lid
3. film developer - the one-time use type where all you need do is place a quantity of the developer in water (10 oz.). When a roll has been developed the developing solution is discarded down the drain. DO NOT KEEP IT FOR FURTHER USE.
4. enough cold water (30 oz.) to wash film immediately after developing and following the fixing solution
5. fast fixer solution. This can be the one-time use fixer of the type that will make a gallon of solution that can be used over several times.

***Here's How To Do It:**

1. Practice steps 1, 2, 3, 4, 5, 6, 7 with old cartridge and film. See Diagram 4.
2. Take the roll of film from the camera. NOTE: With instamatic film you can take the cartridge out in the daylight.
3. Now take the black light-tight changing bag, open the zipper for outside bag at zipper on the inside bag.
4. Place the film cartridge, developing tank, reel, light-tight lid in the changing bag. Now close both zippers.
5. Place your hands and forearms in the sleeves of the bag. Take the film, break open the cartridge, find the roll of film which will be wrapped in paper. Pull the film off the paper backing.
6. Take one end of the film and start threading it on to the reel. As soon as it is on the reel, place the reel in the tank, place the lid on and turn the lid so that it will not come off. CAUTION: CHECK THAT THE LID IS TIGHT AND WILL NOT COME OFF.
7. Take arms out of the bag, open the zippers, take out the tank.
8. Mix the proper amount of film developer with water (10 oz. total solution) and 70°F. Pour the solution into the tank through the opening of the lid. Pour rather quickly, but do not spill solution. IMMEDIATELY start turning the reel inside the tank with the stirring rod. You can also rock the tank back and forth on the counter. This step is called agitation. Do this for about 30 seconds every minute. Develop the film for ______ minutes.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of four students.

9. At the end of the development time, pour the solution from the tank out the opening in the lid. Discard the solution down a drain in a sink or into a pan for discarding later. CAUTION: DO NOT GET THIS SOLUTION IN YOUR EYES OR MOUTH.
10. Now immediately pour in the cold water. Leave it in the tank for only one minute. Discard the solution.
11. Pour in the fixer solution. Agitate this once every minute for approximately 10 seconds. Leave in the solution for 10 minutes.
12. Pour off the fixer. If it is one-time fixer, discard. Otherwise pour back into the gallon container.
13. Place cool water in the tank, agitate once for 10 seconds each minute. Do this for 10 minutes. If you have running water, wash film in the sink. Take one lid off the tank and let the running water go over the reel of film.
14. Take film out of the tank, open reel ends, and take the film out. With a soft sponge wipe both sides of the film. CAUTION: Do not press hard--you will make marks on the film. Remember the film is soft and can be scratched at this point.
15. Hang up to dry, careful that the film does not come in contact with anything. To do this, stretch a cord between two points and, with a clothespin, clip an end to the cord, place a clothespin on the other end for a weight.
16. Film will dry in approximately one hour.

FROM NEGATIVE TO PRINT

ACTIVITY 4-A

Here's Why:

To have each student make a contact print from his own negatives.

Here's What You'll Need:

1. three plastic pans or trays. Approximately 5" x 6" in size
2. one pair of tongs to grasp the paper and move it from one solution to another
3. room light to make exposure
4. paper developer, cool water, and fixer
5. a printing frame
6. contact paper of Grade 2 or 3, size 4 x 5
7. a dark room to work in
8. a dark room red bulb

***Here's How To Do It:**

1. Arrange your work area as shown in Diagram 5.
2. In the first tray to your left, place the required amount of paper developer from the stock solution bottle, mix with the required water.
3. In the second or middle tray place cool water.
4. In the third tray, place an amount of fixer from the fixer bottle. Have enough liquid to cover the prints.
5. Now take your printing frame and open it up. See Diagram 6.
6. Turn off the room light and turn on the red dark room light.
7. Take four negatives, dull side up and place on the glass of the printing frame. Open the package of contact paper, take out one sheet, place the rest back in the light-tight package, and close the flap. Place the contact paper down (glossy side down) on top of the negatives. Put the back on the frame, careful not to move the negatives or paper and lock the back down.
8. Now you are ready to make an exposure. Turn the printing frame over with the glass side up, hold it about five feet away from the room light, turn on the room light for 2-10 seconds, turn the room light off.
9. Now you can take the back off the frame and take out the paper and get ready to develop the paper.
10. Place the paper in the developing tray, being sure to get it covered with the solution immediately. Use the tongs to do this, but be careful not to scratch the surface of the paper. Move the paper around with the tongs until you see the picture appear. Keep moving until the desired contrast is reached, take the paper out immediately, place in the water tray for just about 30 seconds and then out into the fixer for 10 minutes.

*We suggest a qualified instructor teach this activity. Also, use one experienced student aide for each group of four students.

11. Place print in cool running water for 10 minutes.
12. Take out print.
13. Turn on or plug in dryer. Place wet print (picture side down on metal plate) on dryer, cover, lock cover tight. It will take 5-10 minutes to dry print. When dry, the print will pop off dryer.
14. Proceed with other negatives as soon as you place prints in fixer. After a time, take out some of the first prints from fixer and place in water. Do the same for drying in steps 11, 12, 13.

BLOW IT UP

ACTIVITY 5-A (Optional Work)

Here's Why:

To have student make a black and white transparency from a black and white negative. The transparency can then be mounted and projected on a screen.

Here's What You'll Need:

1. select several of your best black and white negatives
2. a printing frame
3. darkroom light (red)
4. a dark room
5. three developing trays
6. paper developer
7. source of running cool water
8. tongs

*Here's How To Do It:

1. Pick out your best black and white negatives, select the glossy side and have this turned down on the printing frame which is upside down.
2. Be sure room lights are out and only the red darkroom light is on.
3. Open can containing black and white reversal film. It will be in a 100 ft. length and can be cut to any length.
4. Cut off a chunk of the film to accomodate your negative or negatives if you are going to copy more than one.
5. Place this film emulsion side (dull) down on the nagatives. Dull sides together in the printing frame.
6. Place the back on the printing frame, lock it, and turn the frame over so the glass side is up.
7. Turn on the room lights for the exposure for __________ seconds and then quickly turn it off.
8. Take out the strip of reversal film and develop it in the first tray that contains developer. Watch for the picture to appear and at the right contrast take it out with the tongs and place in water tray (middle tray) for 30 seconds moving it all the time, then take it out and place in the fixer for 10 minutes.
9. After fixing for 10 minutes place in water for 10 minutes. Cool running water.
10. Hang film up to dry after 10 minutes in water bath.

*We suggest a qualified instructor teach this activity. Also, one experienced student aide for each group of four students.

COLOR ME PINK

ACTIVITY 1-B

Here's Why:

To have students work with an instamatic-type camera for taking colored slides.

Here's What You'll Need:

1. an instamatic-type camera such as Kodak's Instamatic X-15
2. one cartridge of colored slide film-Ektachrome 20 exposure daylight film
3. one package of three blue flashcubes

Here's How To Do It:

1. Take the instamatic camera and practice using all the parts as shown on Diagram 1.
2. Practice inserting cartridge of film. DON'T FORCE CARTRIDGE.
3. For taking colored flash pictures use the blue flashcubes. This flash should be used for indoor pictures or outdoor at night. A blue flash is necessary for color, daylight film.

Here's Where You Will Find More Information:

1. 4-H manuals - No. 2, 3, 4. See at County Agent's office in Courthouse.
2. My Hobby is Photography, Don Langer.

"ONE PICTURE IS WORTH....."

ACTIVITY 2-B

Here's Why:

To have students develop a set of slides telling a picture story of an occupation, i.e., a stenographer's job showing duties, etc. Use school secretary for this. A printer and use the River Press for this. The slide story should be self-explanatory as to a given occupation in the world of work.

Here's What You'll Need:

1. In December have the class divided into five groups of four students.
2. Have the group select an occupation in which they are interested. Make an outline or story board showing what they plan to have on each slide. (Give a brief explanation of what slide should tell.) The slide story could consist of at least 15 to 20 slides.
3. Have the group visit their occupation and plan for taking the pictures at a specific date in January or February when this mini-course unit is used.
4. Have each student in the group know what slides he or she will be taking. Assign this.

Here's How To Do It:

1. In December have groups formed and have them select an occupation that interests them in the world of work. Plan a story board using 4 x 5 cards. On each card write a brief description of what that particular slide will be showing. Do this for about 20 slides. These should tell a complete story of an occupation and should do so without oral communication. In other words a person should be able to look at the slide story and see what an occupation is about.
2. Here is an example of what we want to do:
   OCCUPATION -- secretary
   STORY BOARD -- see Diagram No. 2

STORY BOARD

OCCUPATION - SECRETARY   Use 3x5 cards

1. Picture of Title 1. Use chalk board 2. Make a poster 3. Cutout Letters "By" "Your Name"	2. Picture of principal's secretary working at typewriter	3. Secretary answering phone	4. Waiting on student
5. Taking notes from principal	6. Taking message to classroom	7. Typing a letter	8. Selling lunchroom tickets at noon

9. Receiving money

10. Running ditto

11. Handling incoming mail

12. Out-going mail

13. Coffee break

DIAGRAM 2

STIR CAREFULLY

ACTIVITY 3-B

Here's Why:

To have students mix chemicals for color development of slide film.

Here's What You'll Need:

1. each group will need the following:
    a. 10 amber colored glass pint bottles with stoppers
    b. one slide development kit
    c. a mixing vessel that will hold 16 to 18 ounces
    d. mixing rod
    e. thermometer, Centigrade or Fahrenheit
    f. hot and cold water for mixing the chemicals

***Here's How To Do It:**

The mixing directions for preparation for one pint of each solution must be followed carefully.

1. Prehardener: To 12 fluid ounces (355 ml) of water, at 90° to 100° F (ew to 38 C), add the contents of one packet of Part A slowly, while stirring. Continue stirring and add the liquid from one bottle of Part B. Add sufficient water to make 1 U.S. pint (473 ml); stir until all chemicals are completely dissolved and a uniform solution is obtained.
2. Neutralizer: To 12 fluid ounces (355 ml) of water, at 90 to 100 F (32 to 38 C), add the liquid from one bottle of Part A while stirring. Continue stirring and add the contents of one packet of Part B. Add sufficient water to make 1 U.S. pint (473 ml); stir until all chemicals are completely dissolved and a uniform solution is obtained.
3. First Developer: To 14 fluid ounces (414 ml) of water, at 90 F (32 C) add the contents of one packet of Part A slowly and stir until the chemicals are dissolved. Add the liquid contents of one bottle of Part C, and rinse the bottle thoroughly with water. Add the rinse water and sufficient additional water to make 1 U.S. pint (473 ml). Stir until the solution is uniform.
4. First Stop Bath: To 15½ fluid ounces (458 ml) of water, at 70 to 80 F (21 to 27 C), add the contents of one of the bottles of solution. Stir until a uniform solution is obtained.
5. Color Developer: To 12 fluid ounces (355 ml) of water, at 70 to 80 F (21 to 27 C), add the liquid contents of one bottle, Part A. Rinse the bottle thoroughly with water and add the rinse water to the mixing vessel to make sure that the entire contents are transferred to the solution. Stir until solution is uniform. Carefully open one bottle, Part B. To its dry contents, slowly add water at 120 to 130 F (49 to 54 C) until the bottle is about 3/4 full. Cap the bottle tightly and shak it until the chemicals are dissolved. Add the solution

*We suggest a qualified instructor teach this activity. Also, one experienced student aide for each group of four students.

to the mixing vessel. Rinse the bottle once with warm water and add the rinse water to the mixing vessel. Add the contents of one packet of Part C and stir until completely dissolved. Add the contents of one packet of Part D and stir until dissolved completely. Add sufficient water to make 1 U.S. pint (473 ml) and stir until the solution is uniform. NOTE: When mixed, the solution will appear somewhat cloudy; this effect is normal.

6. Second Stop Bath: To 15½ fluid ounces (458 ml) of water, at 70 to 80 F (21 to 27 C) add the contents of one of the bottles of solution. Stir until a uniform solution is obtained.
7. Bleach: To 12 fuild ounces (355 ml) of water, at 90 to 100 F (32 to 38 C), add the liquid from one bottle of Part A, while stirring; continue stirring and add the contents of one packet of Part B. Add sufficient water to make 1 U.S. pint (473 ml); stir until all chemicals are dissolved completely. CAUTION: This bath corrodes most metals and therefore should not be left in contact with metal equipment any longer than necessary. However, it can be stored in red brass, polyethylene, porcelain, rubber or glass receptacles, or in enamelware having surfaces that are free from cracks and chips.
8. Fixer: To 12 fluid ounces (355 ml) of water, at 70 to 80 F (21 to 27 C), add slowly the contents of one packet with rapid and continuous stirring. When chemicals are dissolved completely, add water to make 1 U.S. pint (473 ml). Stir until uniform. If mixed at temperatures much above 80 F (27 C) the solution may turn milky, but will usually clear on standing.
9. Stabilizer: To 16 fluid ounces (473 ml) of water, at 73 to 77 F (23 to 25 C), add the contents of one of the bottles of solution. Stir until a uniform solution is obtained.

SUMMARY OF CHEMICAL WARNING NOTICES
Keep out of the reach of children.

1. Part A of the Prehardener contains succinaldehyde. Caution! May cause skin irritation. May be harmful if swallowed. Avoid contact with skin or eyes. Do not take internally. In case of contact, flush skin or eyes with plenty of water. If swallowed, induce vomiting.
2. Part B of the Prehardener and the Stabilizer contain formaldehyde and methanol.

POISON

DANGER! Strong sentizer; causes irritation of skin, eyes, nose and throat. Avoid prolonged or repeated contact. In case of contact, flush skin or eyes with plenty of water. Vapor harmful. Use with adequate ventilation. May be fatal or cause blindness if swallowed. Cannot be made non-poisonous. Induce vomiting.

Part B of the Neutralizer contains hydroxylamine sulfate. WARNING! Harmful if swallowed. Causes skin and eye irritation. Avoid contact with skin or eyes. Avoid breathing dust. In case of contact, flush skin or eyes with plenty of water. If swallowed, induce vomiting.

Part A of the First Developer contains p-methylaminophenol sulfate and hydroquinone.

Part C of the Color Developer contains trisodium phosphate.

Part C contains 4-amino-N-ethyl (beta-methane sulfonamidoethyl)-m-toluidine sesquisulfate monohydrate.
CAUTION: Repeated contact may cause skin irritation. May be harmful if swallowed. Induce vomiting.

The Stop Bath contains acetic acid.

POISON

DANGER! Causes severe burns. Do not get liquid or vapor in eyes, on skin or on clothing. In case of contact, flush skin or eyes with planty of water for at least 15 minutes. Harmful if swallowed - DO NOT INDUCE VOMITING--give milk or water.

Part A of the Color Developer contains sodium hydroxide, ethylene diamine, ethylene glycol, and benzyl alcohol.

POISON

DANGER! Causes severe burns. Do not get in eyes, on skin, or on clothing. When handling, wear goggles or a face shield. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes; for eyes, get medical attention. Harmful or fatal if swallowed-do not induce vomiting; give milk or water.

Part B of the Color Developer contains tertiary butylamine borane (TBAB).

POISON

DANGER! Harmful or fatal if swallowed. If swallowed, induce vomiting. Wash thoroughly after handling.

Part A of the Bleach contains sodium thiocyanate.

Part B contains potassium ferricyanide, potassium bromide, and disodium phosphate. CAUTION! May be harmful if swallowed-induce vomiting.

IF ANY OF THESE CHEMICALS ARE SWALLOWED, CALL A PHYSICIAN AT ONCE. Eastman Kodak Company will not be responsible for any skin ailment caused by these products.

A LONG NEGATIVE

ACTIVITY 4-B

Here's Why:

To have student develop a roll of slide film.

Here's What You'll Need:

1. the chemicals mixed in activity 2-C
2. daylight developing tank, reel, turning rod, light-tight lid
3. the cartridge of film
4. black changing bag
5. running water for washing film

***Here's How To Do It:**

1. Place the film, developing tank, reel, turning rod, light-tight lid in the changing bag. There are two parts to the bag with a zipper for each. Be sure that you have placed all the above items in the inside bag, close the zipper, and also close the zipper to the outside bag.
2. Place your hands and forearms into the sleeves of the bag, break open the film, separate the paper backing from the film, take one end of the film and insert and thread onto the reel. When film is all the way on the reel, place the reel inside the tank, place the light-tight lid on and turn to lock.
   CAUTION: BE SURE THAT THE LID IS TIGHT AND WON'T COME OFF.
3. Now you are ready for developing the film. Follow these steps very carefully.

SUMMARY OF STEPS FOR
KODAK PROCESS E-4
(For 1-Pint Processing Tanks)

Agitation: See instructions for equipment used and follow them carefully. Timing: Include time required to drain tank in total time for each processing step.

	Solution of Procedure	Remarks	Temperature F	C	Time in Minutes	Total Min. at End of Step
1.	Prehardener	First 4 steps	85± 1	29.5± ½	3	3
2.	Neutralizer	in total dark-	83-87	28-31	1	4
3.	First Developer	ness.	85± ½	29.5± ¼	7*	11
4.	First Stop Bath	Don't use Stop Bath here!	83-87	28-31	2	13

Remaining steps can be done in normal room light.

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*We suggest a qualified instructor teach this activity. Also, one experienced student aide for each group of four students.

5. Wash	Running water	80-90	27-32	4	17
6. Color Developer	See chemical warning notice	83-87	28-31	15	32
7. Second Stop Bath	Don't Use First Stop Bath here!	83-87	28-31	3	35
8. Wash	Running water	80-90	27-32	3	38
9. Bleach	See chemical warning notice	83-87	28-31	5	43
10. Fixer		83-87	28-31	6	49
11. Wash	Running water	80-90	27-32	6	55
12. Stabilizer	See chemical warning notice	83-87	28-31	1	56
13. Dry	Dry film off the reel	Not over 110	Not over 43		

CAUTION: Observe chemical caution notices given on the containers and in the instructions.

LARGE PROJECTIONS FROM LITTLE PICTURES

ACTIVITY 5-B

Here's Why:

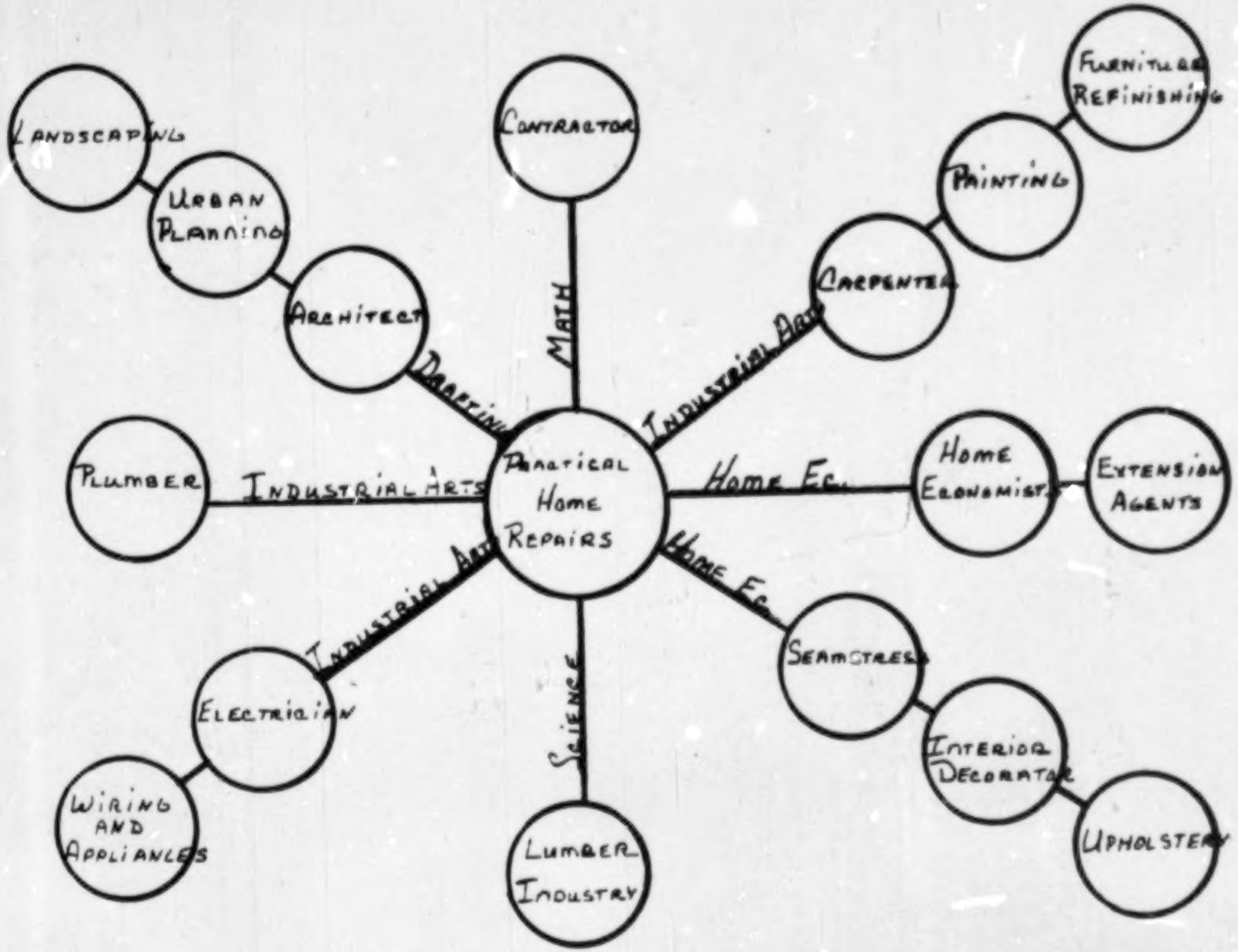
To have students mount the colored slides for projection.

Here's What You'll Need:

1. slide mounts for instamatic size film
2. a tacking iron or regular home iron CAUTION: BE CAREFUL NOT TO BURN YOURSELF
3. a hard surface to work on and one that will not hurt if you get a burn on it. A piece of board 8" x 8" would do well.

Here's How To Do It:

1. Cut your slide pictures apart. Be careful to cut in the middle of the black area that separates each picture. Trimming might be necessary later when you are putting them in the mount.
2. Take the mount, place the slide film in the area of the mount that has a recess for the slide film. Trim if necessary.
3. Bend the top half down over the slide. Note the mounts have been creased so be sure to fold at this crease.
4. Now take the iron (hot) and iron the cardboard area of the mount. CAUTION: DO NOT TOUCH THE FILM WITH THE IRON-ALSO DON'T TOUCH YOURSELF.
5. Let cool and go to the next slide that needs mounting.



Practical Home Repairs--related curriculum areas and occupations.

PRACTICAL HOME REPAIRS

Activity No.	Title	Activity
1-A	Sharp and Shiny	Tool maintenance
2-A	Where's The Trouble	Making a test lamp
1-B	Simple Tools for Simple Jobs	Operating basic tools
2-B	Keep the Line "Hot"	Making electrical supply Repairs
3-B	I've Been Framed	Making a picture frame

Activity No.	Cost/Student	Grade
1-A	less than .10	5
2-A	1.00	5
1-B	1.50	6
2-B	less than .25	6
3-B	.75	6

SHARP AND SHINY

ACTIVITY 1-A

Here's Why:

The student will be able to properly maintain basic hand tools.

Here's What You'll Need:

1. any small tool requiring some maintenance or repair
2. clean cloths
3. cleaning abrasives
4. other shop equipment such as grinder, polishers, etc.

Here's How To Do It:

1. Cleaning
   a. Tools that start to rust should be cleaned promptly. Powdered pumice stone on a damp cloth makes a good mild abrasive.
   b. Another good mild abrasive is the rubbing compound made for finishing automotive paint.
   c. If tools are badly rusted, use fine-grit emery cloth or sandpaper, or a wire buffing wheel. Finish with pumice or rubbing compound.
2. Protection from Rust
   a. Moisture is an enemy of tools. Keep in a dry place, and coat with a protective film of vaseline, heavy oil, or light grease.
   b. One of the best protections is special rust inhibiting grease. It has certain properties which prevent rust under most conditions.
   c. Wrenches and other hand tools which get greasy in use should simply be wiped clean. A thin film of grease will remain and prevent rust.
3. Protecting from Damage
   a. Some tools must be handled and stored with care. Never throw wood chisels in a drawer with other tools. The edges will get nicked.
   b. Keep files on a rack so the cutting edges do not become dulled by contact with other files or tools.
   c. Always lay a plane on its side when not in use. If put down in working position, the cutting edge will get damaged.
   d. In the shop, keep saws hung up. When transporting saws, protect the teeth from other tools.
4. Keeping in Safe Condition
   a. Grind burrs from chisels and punches as soon as they start to "mushroom". Otherwise, the fragments may break off and strike you.
   b. Keep the striking surfaces of hammers free from grease. Grease can cause a glancing blow that may injure your hand badly.

c. Use a screw driver that fits the screw slot. Screwdriv that don't fit may slip and mar the screw head or work, injure the worker.

d. A screwdriver should be very blunt, with the sides prac parallel or slightly concave, and not knife-like or chi shaped.

5. Tightening and Replacing Handles

a. To tighten a hammer handle, drive it into the head by e striking the end of the handle with a mallet or strikin end of the handle on wood surface.

b. With the handle tight, drive a wedge in securely to pre further loosening.

c. To replace a broken ax handle, first saw it off flush w the head using a hacksaw.

d. Drill several holes through the wood in the head. Then out the pieces of wood with a blunt punch.

e. Work the new handle down to size with a wood rasp. Che quently. The handle should enter the head with a snug

f. When properly fitted, the handle should sit squarely in head.

g. If a wooden wedge is to be used, next "rip" the handle point which will be about halfway through the head.

h. Drive the handle tightly into place.

i. Drive in the wedge. Then saw off the end flush with th head.

j. If a steel wedge is used, do not "rip" the handle. Dri handle into place and saw off the end. Then drive in t

k. To replace a shovel handle, first cut or grind off the heads and drive out the rivets.

l. Fit the new handle and drill holes for rivets. Insert and peen accurately.

m. Most fork handles can be replaced by simply drigint the out of the damaged handle and driving it into a new one

n. If any handle is rough at the grip points, sand smooth. handles raise blisters.

SIMPLE TOOLS FOR SIMPLE JOBS

ACTIVITY 1-B

Here's Why:

The student will be able to operate basic tools.

Here's What You'll Need: (Available from Vocational Education Department)

1. 1 1¼" electric drill
2. 1 orbital sander
3. 1 mitre box and saw

Here's How To Do It:

1. Diagrams and instructions on file in the counselor's office. Copies are available.

WHERE'S THE TROUBLE

ACTIVITY 2-A

Here's Why:

The student will be able to construct and use an electrical test lamp in locating sources of electrical difficulties.

***Here's What You'll Need:**

1. pliers
2. pocket knife
3. soldering iron
4. a 230-250 volt, low wattage bulb, rough service, if available
5. at least two feet of No. 14 rubber-covered wire
6. a roll of plastic tape or a roll each of rubber and friction tape
7. a non-metallic, weatherproof lamp socket
8. solder and flux

Here's How To Do It:

1. Cut the wire into two equal lengths. Strip two inches of insulation from one end of each piece and one inch from the opposite end.
2. Strip two inches of insulation from the wire leads of the weatherproof socket. Scrape the exposed wire ends clean.
3. Using a common wire splice, join a length of wire to each of the socket leads, leaving the one-inch stripped end free.
4. Solder and tape each joint. If you used rubber tape, cover with an outer layer of the friction tape.
5. Bring the wire leads up against the sides of the base of socket, one on each side and tape securely. Cover any metal with tape.
6. Bend wires around the light bulb as shown.
7. Wrap at least two layers of tape around widest part of bulb and over the end.

*Diagrams and instructions are on file in the counselor's office. Copies are available. This applies to all activities in the Practical Home Repairs unit.

KEEP THE LINES "HOT"

ACTIVITY 2-B

Here's Why:

The student will be able to make home electricity supply repairs.

Here's What You'll Need:

1. sharp knife
2. wire cutters
3. soldering iron
4. solder and flux
5. screw driver
6. rubber tape
7. short lengths of electrical wire
8. 5 wall switches

Here's How To Do It:

1. Splicing Electric Wires
    a. Remove the insulation from the wires and clean them. Use a knife or crush the insulation with pliers and strip it off.
    b. Scrape the ends clean with the back of a knife or some blunt edged tool. This is necessary to make a good electrical contact.
    c. Where there is no mechanical strain on the joint--for example, in an outlet box--twist the wires together to form a rattail splice. Then solder and tape.
    d. If you use one of the approved solderless connectors, simply screw on the wires to be spliced. No taping is necessary.
    e. Where there is a strain on the joint, remove the insulation for about four inches on each wire. Place the wires across each and form a Western Union Splice. Cut the ends off short and smooth them down with pliers.
    f. Apply a noncorrosive soldering flux, and solder the splice. Be sure the solder penetrates in and around the wraps of the splice.
    g. Wrap the splice with rubber tape, starting at one end and working back and forth spirally. Cover with at least two layers of friction tape.
2. Attaching Wire to Terminals
    a. Remove the insulation from the end of the wire and bend in a hook. Avoid too much exposed wire.
    b. Place the hook so that when you tighten the screw, if will close the hook rather than open it.
3. Repairing Electric Cords
    a. To attach a plug, separate the two wires of the cord and push them through the plug.
    b. Remove the insulation and clean the ends of the wires back just enough to hook around the terminal screws.

- c. Tie a holding knot (also called Underwriters' Knot) in the ends of the wire. This will take the strain if people pull on the cord.
- d. Wrap the ends of the wires around behind the prongs. Then they will be even better to withstand pulls on the cord.
- e. Place the ends of the wires under the screwheads, and tighten them. Be careful to avoid fraying. Make sure the two wires do not touch.
- f. Draw the knot into the plug. If such a knot is too bulky, it can be omitted. Be sure to wrap the wires around the prongs.
- g. To attach a lamp socket to a cord, first remove the cap from the socket.
- h. Put end of cord through the cap and tie the holding knot. Remove insulation from ends of the wire and attach to terminal screws.
- i. If the socket has a clamp such as will hold the cord and take the pull on the cord, a holding knot is not necessary.

4. To replace a wall switch
    - a. First cut off the current. Disconnect the terminals and remove the old switch.
    - b. When installing a single-pole switch (only two connecting screws), connect one wire to each screw.
    - c. In a three-way switch, attach the black wire to the brass screw. Attach red and white wires to either white screw.
    - d. You can easily replace a convenience outlet. Remove and disconnect the wires.
    - e. Install the new one, making sure to connect the white wire to the white screw, and the black wire to the brass screw.

Don't:

1. Forget to cut off the current before you start a repair.
2. Forget to either pull the master switch or disconnect the cord from the outlet.
3. Touch a switch or any electrical appliance with wet hands or when standing on wet footing.
4. Drive tacks through any electrical cords.
5. Forget to always use the proper fuse. Don't use over-size fuses and don't put tin-foil or pennies behind blown fuses.

I'VE BEEN FRAMED

ACTIVITY 3-B

Here's Why:

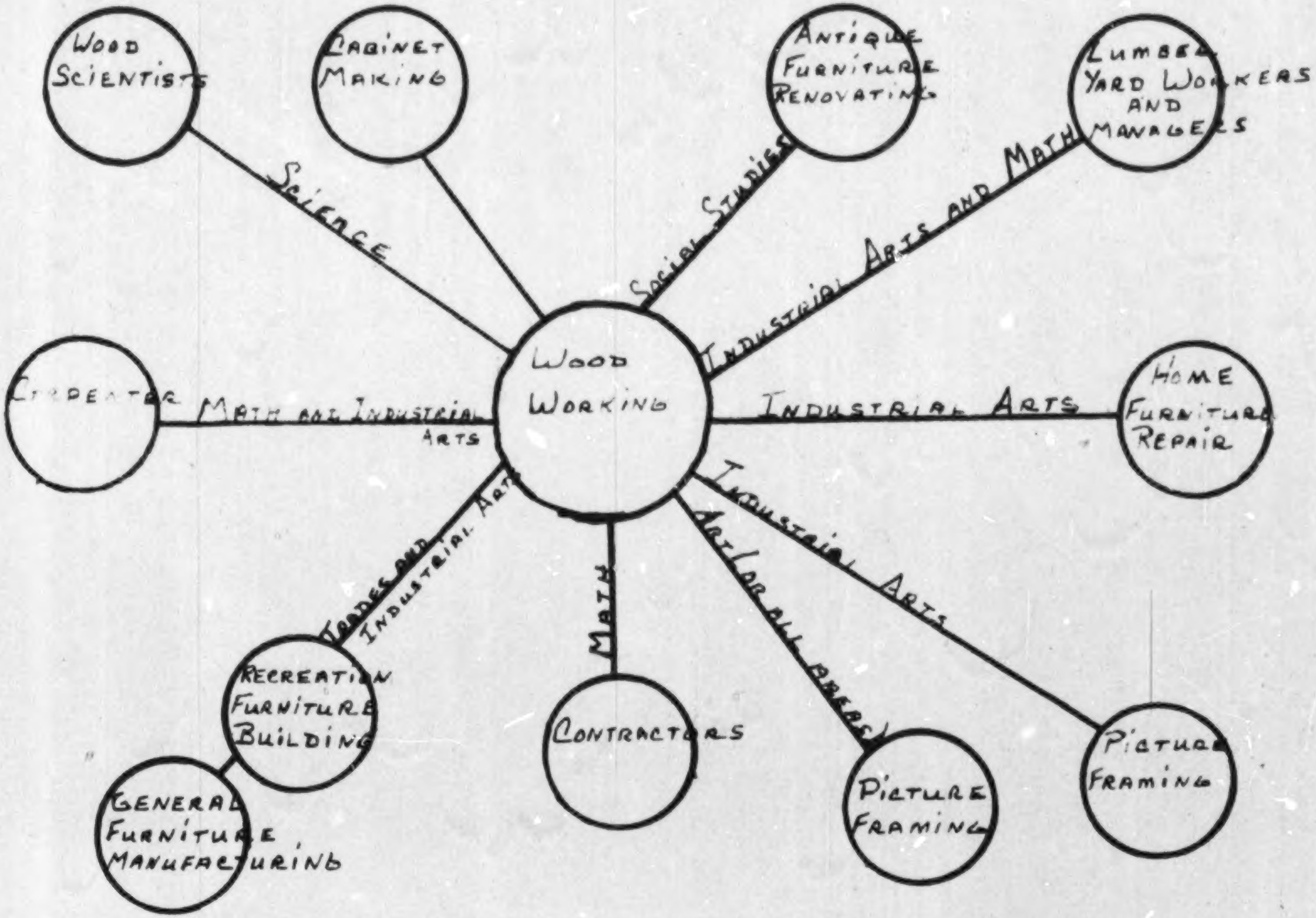
The student will be able to construct a wooden picture frame with mitred corners.

Here's What You'll Need:

1. 2-10" lengths of framing material
2. 2-12" lengths of framing material
3. brads
4. hammer
5. glue
6. mitre saw
7. clamp
8. snad paper
9. wood finisher
10. wood stain

Here's How To Do It:

1. Cut framing materials to desired lengths with 45 degree mitred ends.
2. Sand each length.
3. Glue, nail and clamp each corner.
4. Re-sand especially at mitred edges.
5. Finish or stain.
6. Mount the picture.



Wood Working--related curriculum areas and occupations.

WOOD WORKING

Activity No.	Title	Activity
1-A	Bird House	Constructing a bird house with craft sticks
2-A	Hot Pad	Constructing a hot pad with craft sticks
3-A	Decoupage	Antiquing pictures on wood
1-B	Transferring the Design	Tracing design on wood
2-B	Cutting the Design	Cutting the design with a coping saw
3-B	Sanding and Finishing	Smoothing edges and applying finishes

Activity No.	Cost/Student	Grade Level
1-A	.50	3
2-A	.45	3
3-A	.60	3
1-B	.50	4
2-B	.15	4
3-B	.30	4

BIRD HOUSE

ACTIVITY 1-A

Here's Why:

The student will be able to construct a bird house with craft sticks and plywood.

Here's What You'll Need:

1. 78 craft sticks
2. 1/4" plywood 6" x 12"
3. 18 gauge wire 12" long
4. white glue
5. colored latex paint
6. paint brushes 1"
7. rags
8. water
9. brace with 1 1/2" bit
10. hand saw
11. pattern and pencil
12. newspaper

Here's How To Do It:

1. Trace two patterns onto 1/4" plywood, one with a 1 1/2" hole (front), one without a hole (back).
   a. Cut on the line with a hand saw.
   b. Drill hole with a brace and bit.
2. Lay ten sticks in a row and glue eight sticks across them as shown in Diagram 1.
   a. Glue the plywood ends of the house on as shown in Diagram 1.
3. Glue the sticks from front to back all the way around the house leaving a slight gap at the peak of the roof.
4. Cut a stick to length so that it will fit into the house lengthwise. Notch this stick, secure the wire at notches, place assembly inside the house and thread wire through the gap left at peak of the roof. This is to hang the house.
5. Glue the remaining 24 sticks that form the roof. Diagram 2.
6. Paint the entire house one color.
   a. Be sure glue is dry before applying paint or moving structure.
   b. Be sure all surfaces and edges are covered with paint.
7. When dry, paint any of the surfaces desired a different color.
8. Clean paint brush with water.

Instructional Materials:

Harman, Roberta, Fun With Craft Sticks, Hazel Pearson, Handicraft, Rosemead, California, 1966, p. 23.

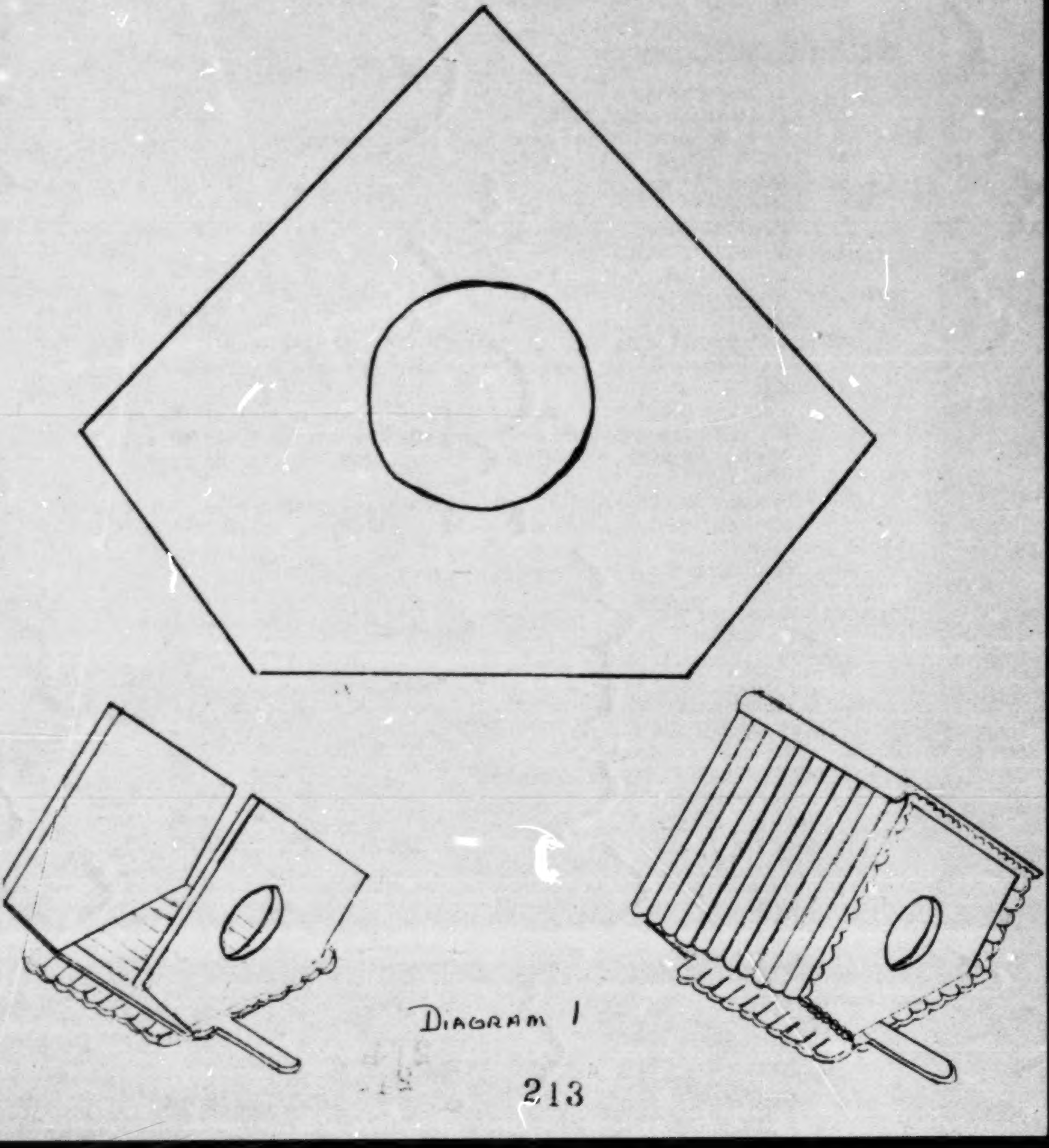


DIAGRAM 1

HOT PAD

ACTIVITY 2-A

Here's Why:

The student will be able to construct a hot pad with craft sticks capable of supporting heavy objects (pan, dishes, etc.).

Here's What You'll Need:

1. 33 craft sticks
2. 33 10 mm. wooden beads
3. 1 yd. of elastic for threading beads and sticks or string 1/16"
4. 1/32" or 1/8" drill bit
5. hand drill
6. pencil
7. straight edge
8. colored latex paint

Here's How To Do It:

NOTE: If painting is desired, paint pieces before assembly.

1. Drill 66 1/32" or 1/8" holes in the 33 craft sticks, 2 holes in each.
    a. One hole 1/4" from the end and in the middle of the stick.
    b. The other 2 1/2" from the same end and in the middle.
2. Thread the string or elastic through the hole in the sticks. Tie loosely.
3. Thread the string or elastic through the center hole in the sticks adding a bead between each pair of sticks to spread the hot pad to shape.
4. Tighten strings or elastics.

Instructional Material:

Same as 1-D

NOTE: If time permits, student can create his own craft stick projects.

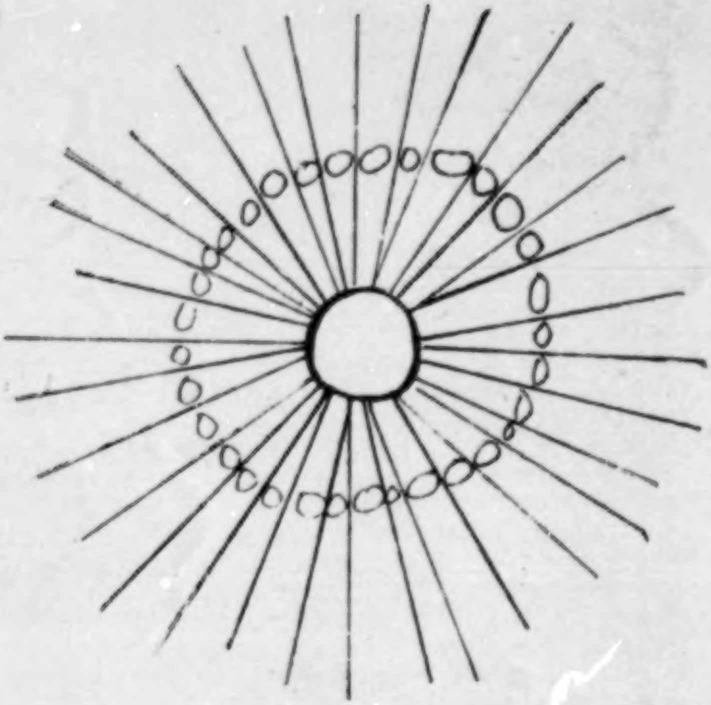


Diagram 1

DECOUPAGE

ACTIVITY 3-A

Here's Why:

The student will be able to correctly apply a picture to a wooden surface using decoupage finish.

Here's What You'll Need:

1. 1/2" hard wood 3" x 6"
2. decoupage finish
3. brushes 1"
4. water
5. cloth or paper towels
6. water base paint (colored)
7. pin
8. hand saw
9. sand paper 220 grit
10. coping saw
11. ink brayer
12. newspaper
13. scissors

Here's How To Do It:

1. Select a picture.
    a. Cut or tear edges to desired size.
2. Cut 1/2" hardwood to desired shape leaving approximately a 1 inch margin around picture.
3. Sand surface and edges of wood with fine 220 grit paper.
4. Brush water base paint on edges and top surface.
    a. Let dry 30 minutes. (NOTE: If natural wood is to be exposed, eliminate this step.)
5. Apply one coat of decoupage to background brushing both horizontal and vertically. It will dry in 30 minutes.
6. Apply a second coat of decoupage to background and a coat to the back of the print.
    a. Place print onto background, cover with a damp cloth and roll out air pockets.
    b. Stubborn bubbles may be pinched with a pin to release air.
    c. Remove cloth and let dry.
7. Apply a finish coat of decoupage for added texture.
    a. Heavier costs may be applied.
    b. Follow the designs on the print for a more precise oil paint look.
    c. Clean out brushes with water.

Instructional Materials:

George, Joyce and Hermes, Janet, Decoupage Start to Finish, Craft Course Publishers, Inc., Temple City, California, 1968, p. 23.

WOOD WORKING (Wall Plaques)

ACTIVITY 1-B

Here's Why:

The student will be able to correctly transfer a design onto plywood.

Here's What You'll Need:

1. designs (patterns)
2. carbon paper
3. pencil
4. 1/4" hardwood ply 8" x 11" and 9" x 14"

Here's How To Do It:

1. Choose pattern and trace it onto the back side of the plywood.
    a. Mark an "x" on the surfaces that are to be cut out.

Instructional Material:

Morris, Floyd, 198 Easy Wood Projects, The Goodheart-Willcox Co., Inc., Publishers, South Holland, Illinois, 1970, p. 96.

CUTTING THE DESIGN

ACTIVITY 2-B

Here's Why:

The student will be able to cut on the line using a coping saw.

Here's What You'll Need:

1. coping saw
2. pattern traced on hardwood
3. wood working vise
4. hand drill with 1/4" bit

Here's How To Do It:

1. Cutting border lines.
    a. Place wood in vise with pattern towards you.
    b. Be sure blade teeth are facing toward the handle.
    c. Cut all border lines.
        1. Change blade angle when necessary.
        2. Keep the cutting as close to the vise edge as possible to minimize vibration. The wood may have to be repositioned in the vise several times.
        3. Make smooth even strokes using the entire length of the blade--cutting takes place on the pull stroke. NOTE: The more strokes, the smoother the finished cut. Apply very little pressure.
2. Making internal cuts.
    a. Making an internal cutout without making an entering cut is done by first drilling a hole large enough to take the saw blade through the waste stock which is to be sawed off.
    b. Drill the hole, place the blade through it and connect to saw.
    c. Saw the entire cutout and remove the blade.
    d. Repeat for all internal cutouts.

Instructional Materials:

Same as 1-B.

SANDING & FINISHING

ACTIVITY 3-B

Here's Why:

The student will be able to smooth the edges and rough spots and apply an even coat of paint.

Here's What You'll Need:

1. sand paper 100 220 grit
2. paint brushes 1" and 2"
3. shellac
4. stain (dark)
5. rags
6. newspaper
7. hand drill and 1/8" bit
8. alcohol
9. turpentine

Here's How To Do It:

1. After sawing, use medium and then fine grit sandpaper to smooth the edges and rough spots and correct minor inaccuracies in sawing.
2. Stain the edges, being careful not to get stain on the top surface.
3. When stain is dry, apply an even coat of shellac over entire plaque.
   a. Apply a second coat when dry.
4. Drill a small hole 1/8' deep at the top center (balance point) in the back of the plaque.
   NOTE: Any combination of stains may be used. (Example: The student could stain both the top and the sides one color, stain the top brown and the sides black, etc.) Make as many plaques as time permits.

Instructional Materials:

Same as 1-B.

REVISION INSTRUMENT

Our entire effort has been to create a learning process to fit our goals which will be subject to constant revision as the need dictates. As time, teachers, methods and materials change it is only logical to assume that this project will have to change to meet these demands. The following instrument is the recommendation of this group for the continual revision of this mini-course curricula. This instrument is to be completed by each instructor involved with the mini-course immediately upon its completion.

The following definiations are stated to assist you in interpreting the statements:

1. GOALS - see page
2. THEME - refers to the grade level
3. CONCEPT - refers to the mini-course (ex. Horticulture)
4. SUBCONCEPT - refers to the activity involved in a concept (ex. Activity 1-A Horticulture)
5. BEHAVIORAL INSTRUCTIONAL OBJECTIVE - refers to the "HERE'S WHY" stated at the beginning of each activity

EVALUATIVE INSTRUMENT

1. Does this concept correspond to the interests of the students? Yes________ No__________
2. Is this concept suited to the maturity level and abilities of the students? Yes_________ No___________
3. Are you able to correlate the material in this mini-course curriculum area? Yes ________ No_________
4. Is the behavioral objective "Here's Why" helpful in developing the subconcepts? Yes_______ No________
5. Could the content of the activity be covered in the allotted time? Yes_______ No_________
6. The home room teacher's attitude was: Positive____ Negative____

7. Were the materials readily available? Yes_____ No_____

8. Were you able to follow the instructions easily? Yes_____ No_____

9. Is there a provision for the child who wishes to go beyond the class instructional activity? Yes______ No________

10. Should the content of the activity be cut-back or expanded? Cut-back______ Expanded_______

11. Is the developed mini-course helping to meet the goals of the "World of Work" Project? Yes______ No_______

12. Was the counselor's role adequate in orientation,presentation and evaluation? Yes_____ No________

PREPARATION AND COUNSELING FOR THE WORLD OF WORK
ESEA Title III Project No. 73-3026
Student Instrument A

( )Boy
( )Girl

( ) Kindergarten
( ) First Grade

(Mark an "X" on the picture that best shows how you feel)

1. DID YOU FINISH YOUR WORK?

SOME

ALL MOST

ALL OF IT

2. DID YOU LIKE DOING THIS WORK?

Poor

Fair

Good

3. MY WORK WAS:

Poor

Fair

Good

PREPARATION AND COUNSELING FOR THE WORLD OF WORK
ESEA Title III Project No. 73-3026
Student Instrument B

( ) Boy ( ) Girl Grade: 2 3 4 5 6 Circle one number for each answer.

1. HOW WELL DID YOU COMPLETE THE PROJECT?

1 2 3 4 5 6 7 8 9
Poor Fair Very Good

2. THE TIME ALLOWED FOR THIS PROJECT WAS:

1 2 3 4 5 6 7 8 9
Not enough About right Too Much

3. THIS PROJECT IS:

1 2 3 4 5 6 7 8 9
Uninteresting Somewhat interesting Very interesting

4. IF I HAD A CHOICE, I WOULD:

1 2 3 4 5 6 7 8 9
Not Do This Project Maybe Would Like To Do A Similar Project

5. IN THIS PROJECT THE COUNSELOR HELPED ME TO LEARN ABOUT JOBS:

1 2 3 4 5 6 7 8 9
None Some Very Much

PREPARATION AND COUNSELING FOR THE WORLD OF WORK
ESEA Title III Curriculum Writer's Instrument No. 1026C

---

1. I was involved in the project lab, ____________________, of which I was the writer.
   a. ( ) As an instructor. ( ) Full Time ( ) Part time
      ( ) Hours spent teaching.
   b. ( ) As a consultant (Advisor).
   c. ( ) As a resource person (Provided materials).
   d. ( ) Other: ____________________

2. Time spent outside of my regular classroom on this project:
   ( ) Hours

3. Time spent outside of school hours on this project:
   ( ) Hours

4. I observed a project lab in operation. ( ) Yes ( ) No

5. From my observations, the project appears:
   1 2 3 4 5 6 7
   Unsatisfactory Very Successful

6. General Comments and Suggestions: ____________________

Signed ____________________

PREPARATION AND COUNSELING FOR THE WORLD OF WORK
Instructor's Instrument No. 1026D

---

1. I was involved in the project lab(s) as a home-room teacher.
   ( ) Yes ( ) No ( ) Grade Level

2. My time was used:
   ( ) Full time in teaching a project concept.
   ( ) Assisting another teacher in teaching a project concept.

3. ( ) Hours spent during school time in preparation for teaching a project concept.

4. ( ) Hours spent outside of school time in preparation for teaching a project concept.

5. I observed a project lab(s) in operation.
   ( ) Yes ( ) No

6. From my observations the project appears to be:
   1 2 3 4 5 6 7 8 9
   Unsatisfactory Satisfactury Very successful

7. General comments:______________________________
   ____
   ____
   ____

Signed______________________________

FORT BENTON PUBLIC SCHOOLS

Project #73-3026

September 1, 1973

"Preparation and Counseling for the World of Work"

Evaluation Survey

Listed below are several statements regarding your class's attitude and knowledge about the world of work. You are asked to indicate with an (X) how you view these statements. Place your (X) on the line according to the degree which best described your class's attitude or knowledge. Comment is optional.

Grade 4 5 6

1. My class's knowledge of a variety of occupations is:

____ No opinion____
1 2 3 4 5 6 7 8 9
Non-existent limited thorough
comments:______________________________
____
____

2. My class knows how different jobs affect an individual and the living pattern of his way of life.

____ No opinion____
1 2 3 4 5 6 7 8 9
knows little understands completely
comments:______________________________
____
____

3. My class has a respect for all types of occupations.

____ No opinion____
1 2 3 4 5 6 7 8 9
disagree agree
Comments:______________________________
____
____

4. My class's interest in considering a vocation has been:

____ No opinion____
1 2 3 4 5 6 7 8 9
little some great
comments:______________________________
____
____

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5. My class's interest in entering the occupation of his parents has been:

____________________________________ No opinion_____

1 2 3 4 5 6 7 8 9

little some great

comments:__________________________________

6. My class's understanding of his parents' occupations is:

____________________________________ No opinion_____

1 2 3 4 5 6 7 8 9

little some great

comments:__________________________________

FORT BENTON PUBLIC SCHOOLS

Project #73-3026

September 1, 1973

"Preparation and Counseling for the World of Work"

Evaluation Survey

Listed below are several statements regarding your child's attitude and knowledge about the world of work. You are asked to indicate with an (x) how you view these statements. Place your (x) on the line according to the degree which best describes your child's attitude or knowledge. Comment is optional.

Mother ______ Grade 4

Father ______ 5

Joint response ______ 6

1. My child's knowledge of a variety of occupations is:

______________________________________ No opinion_____
1 2 3 4 5 6 7 8 9
non-existent limited thorough
comments:______________________________________
____
____

2. My child knows how different jobs affect an individual and the living pattern of his way of life.

______________________________________ No opinion_____
1 2 3 4 5 6 7 8 9
knows little understands completely
comments:______________________________________
____
____

3. My child has a respect for all types of occupations:

______________________________________ No opinion_____
1 2 3 4 5 6 7 8 9
disagree agree
comments:______________________________________
____
____

4. My child's interest in considering a vocation has been:

No opinion_____

1 2 3 4 5 6 7 8 9

little some great

comments:______________________________________

____

____

5. My child's interest in entering the occupation of his parents has been:

No opinion_____

1 2 3 4 5 6 7 8 9

little some great

comments:______________________________________

____

____

6. My child's understanding of his parents' occupation is:

No opinion_____

1 2 3 4 5 6 7 8 9

Comments:______________________________________

____

____

Listed below are several statements regarding the vocational information in elementary schools. You are asked to indicate with an (x) how you view these statements. Comments are optional.

1. Possibly, I would have chosen a different occupation if I would have had a greater knowledge of the world of work in elementary school.

   ________________________________ No opinion_____
   1 2 3 4 5 6 7 8 9
   disagree agree
   comments:________________________________
   ____
   ____

2. Occupational information should be part of the upper elementary (grade four through grade six), junior high, and high school only.

   ________________________________ No opinion_____
   1 2 3 4 5 6 7 8 9
   disagree agree
   comments:________________________________
   ____
   ____

3. Occupational information should be taught as a part of the regular elementary program at all grade levels, kindergarten through high school.

   ________________________________ No opinion_____
   1 2 3 4 5 6 7 8 9
   disagree agree
   comments:________________________________
   ____
   ____

4. Elementary children should learn to respect all types of occupations.

   ________________________________ No opinion_____
   1 2 3 4 5 6 7 8 9
   disagree agree
   comments:________________________________
   ____
   ____

5. Elementary children should learn how different jobs affect an individual and his way of life.

   ________________________________ No opinion_____
   1 2 3 4 5 6 7 8 9
   comments:________________________________
   ____
   ____

6. One of the responsibilities of the public schools is to assist the student in eventually making a wise vocational choice.

No opinion_____

1 2 3 4 5 6 7 8 9
disagree agree
comments:

7. The basic reason for considering an occupation should be for the financial return.

No opinion_____

1 2 3 4 5 6 7 8 9
disagree agree
comments:

8. The basic reason for considering an occupation should be for self-satisfaction.

No opinion_____

1 2 3 4 5 6 7 8 9
disagree agree
comments:

9. The World of Work Program should effectively motivate children in making their choice of a vocation.

No opinion_____

1 2 3 4 5 6 7 8 9
disagree agree
comments:

10. Elementary children should learn that they must attend college in order to obtain a satisfying occupation.

No opinion_____

1 2 3 4 5 6 7 8 9
disagree agree
comments:

11. Parents are the most influential of all contributing factors in their child's choice of a vocation.

No opinion_____

1 2 3 4 5 6 7 8 9
disagree agree
comments:

12. Children's friends are the most influential of all contributing factors in their child's choice of a vocation.

No opinion_____

1 2 3 4 5 6 7 8 9

disagree agree

comments:____

13. Teacher/counselors are the most influential of all contributing factors in their child's choice of a vocation.

No opinion_____

1 2 3 4 5 6 7 8 9

disagree agree

comments:____

14. I prefer that my child follow my occupation.

No opinion_____

1 2 3 4 5 6 7 8 9

disagree agree

comments:____